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ABSTRACT

Provided are the appendixes to a report examining 17 Child Service Demonstration Centers (CSDC) established by the Bureau of Education for the Handicapped to develop and disseminate model projects for children with specific learning disabilities (LD). Included are case studies of the 17 CSDC centers describing approaches and emphases used by CSDCs to develop and stimulate educational services for LD students. Provided are some insights into particularly effective strategies at the sites, as well as some of the obstacles they encountered in working toward their own objectives. Focused on are the contexts in which the CSDCs operate, the principal objectives and activities of each center, and the characteristic ways in which students were served. (IM)

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A Study of Special Programs for Children
With Specific Learning Disabilities

OE Contract No. 300-76-0059

Appendix to the Final Report: Case Studies

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TABLE OF CONTENTS

Page

Introduction 1-3

Child Service Demonstration Centers

Project A . . . . A 1-11
Project B . . . . B 1-10
Project C . . . . C 1-11
Project D . . . . D 1-11
Project E . . . . E 1-11
Project F . . . . F 1-13
Project G . . . . G 1-11
Project H . . . . H 1-10
Project I . . . . I 1-11
Project J . . . . J 1-13
Project K . . . . K 1-11
Project L . . . . L 1-12
Project M . . . . M 1-13
Project N . . . . N 1-11
Project O . . . . O 1-11
Project P . . . . P 1-10
Project Q . . . . Q 1-12

INTRODUCTION

This document is the appendix to an evaluative report about the Learning Disabilities Program funded by the Bureau of Education for the Handicapped (BEH). The case studies in this volume describe the activities of 17 Child Service Demonstration Centers (CSDCs) which were in their second year of contract funding under the Learning Disabilities Program during 1975-76. The main report, entitled "A Study of Special Programs for Children with Specific Learning Disabilities,"* is a cross-program analysis of the centers in terms of two questions:

1. To what extent are the children served by the CSDCs diagnosed as learning disabled, according to the federal definition, and what is the relationship of diagnosis to the provision of educational services?
2. To what extent have CSDCs stimulated state and local services to learning disabled children?

The 17 centers described in the case studies were addressing themselves, in accordance with federal guidelines, to the following purposes:

- To provide testing and identification of learning disabled children
- To develop educational programs designed to meet student needs
- To disseminate information that would help in making model programs available to other children with learning disabilities
- To encourage and assist in replication of the model center itself
- To establish an Advisory Council to assist actively in planning, developing, and operating the model center
- To involve parents in the project in active, effective ways
- To coordinate with other community agencies that were delivering services to learning disabled children and their families
- To provide training and staff development for teachers who interacted with learning disabled students on an ongoing basis

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*American Institutes for Research, Palo Alto, California, 1976.

Information for the case studies was collected from reports and other documents published by the centers, and from interviews conducted with staff members during one-week visits by AIR to the 17 centers in the spring of 1976.

The intent of the case studies is to acquaint the reader with the various approaches and emphases used by CSDCs to develop and stimulate educational services for learning disabled students. They are not intended as summative judgments of the centers' priorities or overall effectiveness. Such judgments would require a more rigorous type of evaluation than was possible under the constraints within which the study was carried out (e.g., no direct observation or testing of students and no direct comparison of projects). Rather, there has been an attempt to provide some insight into particularly effective strategies at the sites, as well as some of the obstacles they encountered in working toward their own objectives. It is hoped that this information might prove helpful in understanding the dynamic processes which impede or encourage local programmatic efforts.

Limitations of space within this report preclude the description of all activities being carried out by each center. For this reason, the descriptions focus on the contexts in which the CSDCs operate, the principal objectives and activities of each center, and the characteristic ways in which students were served.

The 17 CSDCs differed along a number of dimensions. To a very great extent this derives from:

- The proportion of Title VI-G funding (from 10% to 87%)
- The amount of overall support for the CSDC ($75,427 to $725,650)
- The size of the designated service area (one high school to a full state)
- The number of professional CSDC staff members involved
- The primary affiliation of the CSDC (LEA, SEA, university, and private nonprofit organization)
- The length of time the CSDC had been in operation (from two years to more than five years)

It is clear from the case studies that most of the CSDCs have made progress toward the objectives they set for themselves, despite a number of obstacles. The most common obstacles were limited resources (time, money, trained personnel, and materials); lack of understanding about the field of learning disabilities on the part of parents, educators, and the community in general; and difficulties inherent in the act of creation itself--of a new program, providing new kinds of educational services, to a newly identified group of students.

There are lessons to be learned, even from those CSDCs which were experiencing difficulty in reaching the goals they had planned. Looking across all of the centers, it is apparent that there are certain keys to the implementation of projects that are both workable and accepted at the local level. For instance,

- The involvement and timely support of state and local education agencies
- The matching of center services to local needs and resources, including parents, universities, and social service agencies
- A child-centered approach which individualizes services to fit the needs of the child
- Dedicated professional staff members who are willing and able to communicate the importance of the project to educational decision-makers at the state level and in potential adopting districts

The extent to which CSDCs have recognized these factors and have been able to incorporate them into their philosophies and activities was found to be a major determiner of the centers' effectiveness.

PROJECT A

Overview

The headquarters of this CSDC is located in the offices of the county school district, which in turn are located in a large metropolitan area. Both the county district and the CSDC serve the region surrounding the city, which includes suburban, rural, and small town areas.. The CSDC also serves districts and counties in other parts of the state through its replication activities. Socioeconomic conditions in the immediate county range from low to high. The population is predominantly Caucasian, but according to project staff estimates, from 5% to 10% of the students in the project are black and another 5% to 10% are Hispanic. The county itself has approximately 10% of the state's population.

The project first began in 1972-73 with Title VI-B funding. In 1974-75, it was selected by the State Department of Education as a dissemination project and was invited to join a network of centers serving educationally handicapped students, which by state definition includes those with learning disabilities (LD). The educational specialist who had provided inservice training to county teachers during the first two years became responsible for dissemination and replication of the project, and another staff member took over the training duties.

The main focus of this center has been the provision of support services to special education teachers in outlying (and somtimes isolated) schools through the use of a mobile van. The van contains an extensive range of diagnostic and instructional materials and thus serves as a resource center. While on site, it is also used as a demonstration classroom, to which local teachers and students come for special help and instruction by two Center staff members. One of these persons is a teacher with special training in learning disabilities; the other is a student intern from a local university. The CSDC also sponsors monthly workshops at the Center offices for county teachers and administrators. Since 1974-75, there has been a major emphasis on replicating the project in other parts of the state which have similar characteristics and needs--small rural schools, limited resources, and scarcity of teachers trained in learning disabilities. Replication consists primarily of training for teachers and administrators at the Center with follow-up technical assistance on site.

During 1975-76, 73 students were served directly through the van, and 253 were served indirectly through contact with teachers trained by the CSDC. Replication was carried out in seven school districts. Nine districts within the county participated in the full van service and monthly workshops; nine county districts participated in monthly workshops and used materials provided by the Center. Several districts, both within and outside the county, were on a waiting list for training in 1976-77.

Funding/Staffing

Total budget for 1975-76 was approximately $77,600, one-third from Title VI-G and two-thirds from Title VI-B. Title VI-G funds supported the replication activities of the Center, while VI-B funds were used primarily for the county inservice training and services.

The Center has four full-time staff members: the coordinator who is a specialist in diagnostic/remedial techniques, a curriculum/materials specialist who serves as the resource teacher on the van, a student intern, and a secretary. Student interns receive college credit and practical experience by working under the supervision of the resource teacher. They are selected from among the top students in the Special Education Department of a nearby university. Interns spend three months traveling with the van; three interns work with the Center each school year on a rotating basis. Title VI-G funds pay the salary of the project coordinator; the other staff members are supported by Title VI-B monies.

The Project Director is a clinical psychologist whose main responsibility is with the pupil services department of the county. His salary is paid by the county, which also provides office space, administrative services, and consultants to the project. All of the county's informational services are available to the Center, including information about vocational education for the handicapped and about Title III projects and literature from the ERIC system. The Center receives materials from Title III projects and the Regional Resource Center which also has money available for the diagnosis of children who may be learning disabled (LD).

As part of a state network, the Center receives ongoing guidance, support, and information from the State Department of Education and from the coordinator of all the centers in the network. The state, through Title VI-G, also provides training and conferences for staff members of the centers.

Two local universities support the project through the student intern program and by providing consultants for training workshops and college credit for teacher participants. Faculty members serve on the local advisory committee.

A number of local civic organizations have provided ongoing support to the project in a variety of ways: money to print a booklet about the Center, money for out-of-town speakers, the provision of films and other materials about LD, information and dissemination activities, etc. According to the project coordinator, the local chapter of the ACLD has been especially effective in helping the CSDC meet its dissemination goals.

This center does not interact directly with other service groups, such as social welfare or mental health agencies and medical facilities. Contact with these agencies is through the local school districts and is outside the Center's area of responsibility.

Goals, Objectives, and Related Activities

The two major goals of the center are to (a) serve as a demonstration center for small school districts within the county and (b) serve as a demonstration/training center for other districts or county offices which are interested in replication. These goals are best discussed in terms of activities directed toward students and teachers within the county and activities directed toward educators from replication districts.

Specific objectives for within the county were that approximately 30 to 40 students would be served by the van and that these students would show improvement in learning rates and school learning behaviors, that project teachers would show increased knowledge and skill, and that project services would be continued to 20 county school districts with less than 8,000 average daily attendance. According to the project coordinator, the Center has met these targeted objectives. This judgment was confirmed in a report prepared in the spring of 1975 by a state-appointed team of auditors.

During 1975-76, the following activities were carried out.

- Diagnostic/prescriptive profiles for more than 30 students were written by teachers who participated in the Center's training program and the progress of these students was monitored by the resource specialists. (Evaluative data for these students are included in a later section). A large number of additional students received informal screening and assessment by teacher participants under the direction of the resource specialists.
- Ten monthly workshops, lasting one day, were conducted for special education teachers, regular classroom teachers, and psychologists from the 20 county districts. There were 40 attendees at each workshop.
- The van made approximately 20 visits each month to the outlying districts.

Prior to the monthly workshops, all small districts in the county were notified, and enrollments were accepted until the limit of 40 attendees had been reached. Those who attended were divided into beginning, intermediate, and advanced groups, and presentations were tailored to fit their needs. Teachers from nearby areas were paired up in a buddy system for mutual support and guidance when they returned to their home schools. If teachers were interested in a special subject, the Center arranged for extra study on the weekends, usually through the resources of the local universities or other agencies. Instruction at the workshops was by expert consultants who emphasized experiential learning and who provided materials for the teachers to take back to the classroom.

The van made approximately 20 on-site visits per month, lasting from one-half to one day. Local teachers were notified of the date on which the van would be in the district and were given the opportunity to let the Center staff know what their specific needs were, e.g., for materials, for instruction in diagnostic processes, or for help with a particular child's learning problems. The van was staffed by the Center's resource teacher and the intern, who worked either with an individual child (with the teacher observing) or with the teacher alone. The interns also provided release time for teachers to visit the van. One function of the van was to follow up on the training provided in the monthly workshops to determine if teachers were using what they had learned.

The prime objectives of the CSDC's replication component were that awareness visits for 20 districts would be conducted and that formal agreements would be signed with 10 district or county officers to train their personnel in how to duplicate the project. According to the state audit report, 20 districts did request awareness visits. Seven districts sent teams to the CSDC for one week of standard training in assessment, intervention, and writing of educational plans; 8 districts received other services over 1-day and 3-day periods; and there were 7 districts on the waiting list for standard training in 1976-77. Standard training is the basic element in full replication.

The replication process consists of the following steps:

1. The first contact is made by the interested district, acting on information received from the state network or through other dissemination channels.
2. An informal needs assessment is conducted with the district by the CSDC coordinator.
3. The district is sent a booklet which outlines the services and training provided by the Center. This is followed by a half-day awareness visit to the CSDC by the district.
4. A second needs assessment is conducted on site by the Center coordinator to determine who should be trained and which training components are needed by the district. A written agreement which includes a district commitment to implement and evaluate their procedures is signed.
5. Training is conducted either at the CSDC or in the local district, whichever is most feasible. A typical training period is one week. Three days are spent in a school district, where the replication team receives practicum experience in working with students. Two days are spent in writing educational plans and preparing the implementation plan. A second week of training is given to those districts which plan to use a mobile van.

6. Follow-up activities include (a) critiques of administrative and educational plans which are submitted to the CSDC by the replication site, and (b) visits to the replication site by the CSDC coordinator. The monthly training workshops are also open to people from the replicating district.

In selecting the team for replication training, the CSDC coordinator makes every attempt to involve key people from the local district to ensure acceptance of the project. Teams usually consist of an adminstrator, special educators, the district psychologist, the speech and language therapist, and a regular classroom teacher. The size of teams ranges from six to ten people.

A second feature of replication training that is designed to increase local acceptance is the selection of training components that most closely fit the needs of the replication district. There are four major training components:

- How to plan for, buy, organize, use, and evaluate a mobile resource unit
- How to provide services to students through in-depth assessment, planning, intervention, and evaluation
- How to organize a system for prescriptive use of resource materials
- How to design and evaluate an inservice training program that coordinates group inservice workshops with on-site resource services

Districts can select training in any or all of these components; it is not necessary that districts have a mobile van in order to replicate major features of the Center program.

Services to Students

The state in which this CSDC is located includes learning disabilities as one of four disorders covered by state regulations for the educationally handicapped (EH). The other categories of disability are behavior disorder, serious emotional disturbance, and autism. The following definition of LD is used in determining a student's eligibility for services under the EH program:

(1) Specific learning disabilities in the psychological, mental, or physiological process which involve interference in understanding spoken or written language. Such learning disabilities include, but are not limited to, those sometimes referred to as perceptual handicaps, minimal brain dysfunction, dyslexia, dyscalculia, dysgraphia, or communication disorders, except aphasic as defined in Section 3600(g) of this title.

(2) The specific learning disabilities are of such severity that they interfere with the learning of the basic skills expected of pupils of similar age, and evidence is presented that upon amelioration of such disabilities a favorable prognosis may be made for the reduction of the discrepancy between the pupil's ability and level of functioning in the learning skills.

(3) Where the general level of academic functioning is below expectation for the pupil, such delay shall not be attributable to mental retardation for academic learning.

(4) The specific learning disabilities shall be determined by a complete evaluation accompanied by recommendations for the amelioration of the learning disorder that can be carried out within the class or program recommended.

Each local education agency in the state is responsible for determining eligibility of students for the educationally handicapped program, diagnosis of learning problems, and the preparation of an appropriate educational plan. Within this framework, the CSDC is primarily a resource center and is not involved in student referral and screening or in setting educational goals. These activities are carried out by school psychologists, nurses, speech and language specialists, and other specialists at the local level. At the point where students have been identified, referred, screened, and accepted into a special program and general educational goals have been set, the special education teacher must then develop specific educational objectives to meet the general goals already prescribed. The CSDC provides any needed training that will support the special education teacher in fulfilling this role, including additional testing as warranted, writing of educational objectives to complete the educational plan, prescribing appropriate intervention activities and materials, and setting criteria for meeting educational objectives. Thus services are provided to teachers on an as needed basis.

As a way of evaluating the effectiveness of the Center's services, each of the special education teachers who received training was asked to provide the CSDC with educational plans and pretest and posttest scores on a small number of their students. These then became part of a state system CSDC report. Table 1 on the following page shows the results of evaluative testing on this student sample. (These data are adapted from the state CSDC table showing complete results.) The data show that mean gain rates increased in all academic areas except in reading comprehension for students included in the sample.

Other CSDC Activities

Much of the dissemination about the Center is handled at the state level through the CSDC network. In addition, Center staff members have disseminated information about services rendered by the CSDC, community services available to the LD child, and the nature of learning disabilities per se to a number of local groups including educators, parents, and community organizations. Materials used in dissemination include a county newsletter, a brochure, and a slide/tape presentation. The mobile van has been used for displays at various locations in the area, and the staff members have made presentations at conferences sponsored by CEC, ACLD, and the state association of school psychologists. Plans for the future include the use of educational television facilities in the county offices for dissemination purposes.

Several attractive, well-written booklets have been prepared by staff members for use in training and in replication, and these materials are also used in exhibits and other dissemination activities.

Contact with parents of students who are served through the CSDC is the responsibility of the local school districts. However, materials for parents are given to teachers at the monthly workshops, and once a year there is a workshop on working with parents for project participants. The importance of parent involvement is stressed by Center staff members when training educators and teachers. All four of the parents interviewed at this site had had extensive contact with teachers in the learning disabilities program, and two were carrying out many learning activities at home with their children. Three parents mentioned improvements in attitudes

TABLE 1

Gains of Students Served by Center, Adapted from State Data Sheets

		Part day in Regular Class-Part day in LD Group				Full-Time Special Class			
Grade Level	Test	n	Base Gain Rate[a] $\overline{X}$	Months[b] $\overline{X}$	Gain Rate[c] $\overline{X}$	n	Base Gain Rate $\overline{X}$	Months $\overline{X}$	Gain Rate $\overline{X}$
1-3	Reading Recognition	6	0.8	8.0	1.3	2	0.6	6.0	0.8
	Reading Comprehension	4	0.9	6.8	0.4	1	0.4	6.0	1.0
	Mathematical Concepts	6	1.2	4.7	1.7	2	0.6	4.0	3.2
	Mathematical Computation	5	1.2	4.0	2.6	2	0.5	4.0	1.4
4-6	Reading Recognition	3	0.8	7.0	2.3	2	0.5	5.5	2.2
	Reading Comprehension	1	0.6	8.0	1.2				
	Mathematical Concepts	1	0.4	8.0	1.4	2	0.8	7.0	1.2
	Mathematical Computation	2	0.9	6.5	1.2	3	0.7	6.3	1.8
7-9	Reading Recognition								
	Reading Comprehension								
	Mathematical Concepts								
	Mathematical Computation								
10-12	Reading Recognition								
	Reading Comprehension								
	Mathematical Concepts								
	Mathematical Computation								

[a] Base gain rate = $\frac{\text{Pretest}}{\text{months of instruction since 1st grade entry}}$

[b] Months = months of intervention instruction

[c] Gain rate = $\frac{\text{Post-pre Test}}{\text{months of intervention instruction}}$

and grades and were enthusiastic in their praise of the program. One mother saw no progress in her son and felt that he had special needs which were not being met.

The Advisory Council for this CSDC meets monthly in brainstorming sessions with the project coordinator. She considers the Council a good sounding board for ideas being considered by the Center, as well as a good source of information. The Council consists of parents, university faculty members, teachers who have participated in the Center's training, and local administrators.

Discussion

This CSDC has used a very small staff to impact on a very large area. In doing so, it has had the support of both state and county education agencies. What has been perhaps even more important in helping the Center meet its objectives, however, have been some of the processes employed to bring about change at the local level. For instance,

- Needed resources for serving the learning disabled student have been made available to teachers at the home schools through use of the van.
- Training has been based on teacher needs.
- There has been follow-up technical assistance after teachers have had experience in applying what was learned during training.
- Replication training has been personalized to meet local district needs.
- There has been an effort to include local "change agents" on teams selected for replication training.
- There has been continuing follow-up assistance to replication sites through provision of new materials, critiques of educational plans, and on-site visits by the CSDC staff.
- In working with teachers, tests and procedures have been selected which take into account the knowledge and skills of those who must administer and interpret them.

Staff members feel the Center should be even more effective with more multimedia resources for dissemination and with more awareness of its services within the county. They plan to spend more time on both of these areas in the future. The Center will continue under Title VI-G funds and as part of the state network during 1976-77.

PROJECT B

Overview

This CSDC is located in a small, well-populated eastern state and operates out of a nonprofit educational corporation. Although many school systems in the state have employed learning disabilities specialists for five years or more, it was not until the school year of 1974-75 that a new noncategorical, special education state law was passed which emphasized early detection of students with special needs. This law called for the provision of services for these students in the least restrictive, preferably the mainstreamed, environment.

The CSDC began in the same year. Because it is a training-based model designed to provide kindergarten through grade 2 classroom teachers with the skills needed for early detection and intervention of young children with learning difficulties, the CSDC was able to meet many immediate program planning and teacher-training needs of school districts attempting to fulfill the state mandate. The CSDC is patterned after a previous program funded by Title VI-G that was located in a neighboring state and administered by the same director from 1972-74. The majority of the core concepts and materials used in that project had been developed earlier by the Project Director and an associate in an Early Childhood Education program from 1969-72 in the same neighboring state.

The Title VI-G project is operated jointly with a sister project which provides the same teacher-training services to prekindergarten programs in the state. The sister project is funded by Title VI-C funds, yet shares the same office and training materials with the CSDC.

Together, the two projects function as a statewide network providing early detection and intervention training to educators in eight regions and 56 school districts. All these school districts were recruited by the CSDC and participate voluntarily. Statewide the Title VI-G part of the program (K-2) directly serves 36 of the 56 school districts and serves a population of students who are approximately 98% Caucasian, 1% black, and 1% Hispanic. The school systems served represent urban, suburban, and small-town populations.

The primary activity of the CSDC is implementation of a "training waves" model. In this design, information regarding the process of early detection of learning disabilities and intervention in the mainstream is shared among the CSDC staff and then passed on to site coordinators and workshop participants, who then share it with other local staff. Ultimately, the information is spread to parents and other community members. Training is provided to the LEAs in 10 monthly Starter Workshops presented by the CSDC staff. Each district has an appointed site coordinator who provides follow-up workshops in the home sites, maintains ongoing communication with CSDC staff, and disseminates information about the early detection of learning disabilities in the home community. The long-range goal of the CSDC is to produce self-sustaining training programs for mainstreaming in the LEAs.

Funding/Staffing

During the 1975-76 school year funding from Title VI-G was $100,000 which provided the CSDC's core operating budget. The Title VI-G funds were used to pay the salaries of the full-time Project Director, three field coordinators, and one secretary-administrative assistant; to provide consultant and technical assistance to immediate CSDC staff; to pay for extensive travel budgets; and to provide office rent and supplies for CSDC headquarters.

The rest of the budget estimate is as follows:

$500,000	from local school districts receiving training through the CSDC network
$ 85,000	from Title VI-C (Early Childhood Education) for the sister project
$ 15,000	in services provided by Early Childhood State Coordinator and other consultants

The majority of the network's expenditures are made by the LEAs in providing classroom teachers' and site coordinators' release time for CSDC meetings and workshops. Also one LEA in each of the eight regions provides meeting facilities as well as any necessary consumable materials.

The Title VI-C funds provide staffing of the sister Early Childhood Education project which includes a Project Director, a field coordinator, and an administrative assistant.

The CSDC has found NaLDAP to be of assistance in 1975-76, in providing useful workshops and acting as consultants and as an information resource. Regional resource centers have also been of use. Four local universities give college credit to district personnel for participation in CSDC workshops. Three LEAs give participants credit and more are working towards that goal.

With the assistance of the state Manpower Training Group which is coordinating special education training institutions across the state, the CSDC is being put in closer touch with more institutions of higher education. A liaison with a local medical school has been established, and information about the CSDC and learning disabilities is disseminated in some of its classes.

The local LEAs to which the CSDC provides training give a varying degree of support to the CSDC. Contact with service agencies within the community is encouraged, but each LEA has established such contact to a varying degree. The state ACLD has disseminated CSDC materials and provided the CSDC with a forum for their screening and teaching techniques.

The Project Director emphasized that federal funds are viewed as seed money by the CSDC and that the ultimate goal of the Title VI-G project is to provide training to LEAs so that they can then run their own programs. It was also noted by the Director that the CSDC could not function without the vital indirect funding that the LEAs provide in making space, consumable materials, and teacher/supervisor time available for training.

Goals, Objectives, and Related Activities

In its original proposal in 1974, this CSDC's main objectives were the following:

- Objective 1: To expand formally the network to 23 regions covering a six-state area. Each region would have a local advisory committee and two regional coordinators responsible for convening local meetings and serving as linkage persons for the region

- Objective 2: To develop approximately 60 child service demonstration center school systems in the six-state regional area, each of which would do the following:
  - (a) Train six teachers from kindergarten, grade 1, and grade 2 classrooms in weekly workshops during the first year and 18 kindergarten through grade 2 teachers in the second year and
  - (b) Prepare an individualized program for at least two learning disabled children (two for each participating teacher) to ensure their continued successful participation within regular classrooms
- Objective 3: To provide validation and demonstration of project-developed and adapted curricular materials designed to meet the special needs of learning disabled children

Over time, the goals and objectives of the project have been reduced in scope as the CSDC staff realized the enormity of the original objectives. The first half of 1974-75 was spent canvassing the state and locating interested school districts within the state. The second half of the year was spent in planning and providing preliminary training to selected districts. One of these districts was able to implement a fully operational program that served "at risk" kindergarten students.

In the school year 1975-76, a move towards accomplishing Objective 1 was made by hiring a third field coordinator (part time) in a neighboring state of the six-state region. This third field coordinator has established an advisory council in his home state, disseminated information regarding the CSDC network, and given eight workshops. In working towards Objective 2, 36 school districts in the home state received a complete year of 10 training workshops. As a result of the workshops, 270 students in kindergarten through grade 2 were provided with full CSDC-style diagnostic services and classroom modification programs. The training program also initiated in-depth screening for 1,368 students. The CSDC director pointed out the high probability that many more students were indirectly benefited by their teachers' new observation skills and knowledge about curriculum and classroom adaptations. The Director further believes that the original objective of 60 CSDC sites in the six-state region could be attained if efforts of all the existing CSDCs in that region were to be coordinated.

In order to accomplish the objective of a training network, the CSDC provides a thoroughly organized training and communications process to its 36 LEAs.

This process consists of the following characteristics:

- Monthly workshops regarding the CSDC screening and intervention program which is based on informal observation and formal screening activities to determine the student's participation, information processing, and symbolizing skills
- Appointment of a local site coordinator (usually a specialist, but sometimes a principal or classroom teacher) who is responsible for attending monthly 2 1/2-hour coordinator meetings and assisting CSDC staff at the monthly 2 1/2-hour training workshops. Local coordinators conduct at least one follow-up workshop for educators in his/her home district, working closely with each workshop participant in conducting screening, planning classroom modifications, and maintaining ongoing contact with CSDC staff
- Monthly homework assignments which participants are expected to complete with their two target learning disabled students
- CSDC provision of all training manuals and assessment tools to all workshop participants
- Three regularly spaced checkpoint visits by CSDC staff to each site, which are followed up with summary letters
- Evaluation questionnaires and inventories which provide CSDC staff with feedback about workshop content and presentation and trainee changes in attitude regarding programming for the special-needs child in the mainstream

The emphasis of the training workshops is on the existing expertise of the classroom teacher and how to best use such expertise in providing for the child with special needs in the classroom. School specialists and CSDC site coordinators are seen as assistants to the classroom teachers. The CSDC's goal is to phase out CSDC technical assistance within two to three years, along with the services of the specialist and to have the classroom teacher fully capable of identifying and programming the young special-needs child in the classroom.

Services to Students

According to the recent state mandate, children are not labeled learning disabled but are considered to be students with special programming needs. It is the intent of the law that students be served in the least restrictive environment, preferably in the mainstream. Suspected special-needs students are required to go through a rigorous diagnostic and placement process that is conducted by a team which includes learning specialists, the home school principal, the parents, and medical and psychological components. Detailed educational plans which are revised every two months are required. It is the hope of the CSDC that its early detection and intervention process will provide enough supportive assistance to children just beginning the educational process that a large percentage of students will not have to go through the process outlined by the state.

If a CSDC target child appears to need the further diagnosis and programming provided by law, the CSDC screening information and classroom adaptations are designed to provide supportive data and programming.

CSDC target students are rated on observational instruments and complete several screening tasks which pinpoint their developmental level in the following areas:

Participation Skills	Processing Skills (Reception and Expression)	Symbolizing Skills
self-organization	visual/perception/motor	time
social skills	language	number
classroom independence	body awareness and control	direction
		size
		reading
		spelling
		math and other academic skills

If a student is deficient in any skill area, the student is administered a standard follow-up exercise which further pinpoints the breakdown in skill acquisition. The CSDC has defined eight developmental levels (correlated with ages 2 to 8) of skill achievement and has set criteria for each level. Using the screening and follow-up information, the teacher ranks the student's level of achievement in each of the skill categories and develops a profile of the student's discrepant abilities to date. An educational plan and specific objectives based on the apparent deficit areas are then written. In designing this plan, close attention is paid to matching the child's learning pattern and style with the learning environment. If the environment needs to be modified to better match the child's style, it is done through techniques such as creating private spaces for children, charting students' tasks, and color coding of information. Teaching through the child's strong processing channels and beginning work at the child's specified level of skills achievement are stressed. Skills are taught sequentially as the child progresses up through the eight levels of skill growth. The CSDC also trains its teachers to provide positive feedback to students concerning their efforts and progress.

The entire process is carried out by the classroom teacher in his/her room in accordance with the state mandate. Only rarely does a specialist carry out the educational plan. Sometimes peer tutors or other school personnel (such as the gym teacher) are written into the plan. While the teacher is in CSDC training, the site coordinator is involved as an assistant in the screening and planning.

Goals are written in three-month stages, and educational plans are expected to be evaluated and revised every three months by the teacher. At the end of the year each target student is posttested on the screening devices and rated again as to the level of his/her skill acquisition. The results are charted, and any change in levels of skill acquisition is apparent. A final report which records the end-of-year level of skills, successful learning environment modifications made for the student, and specific recommendations for the next year is written for each student. The final report is placed in the student's folder along with standardized end-of-year testing which the school district might require. Principals and parents may receive a copy of it depending on the local school district. The project has compiled data which show student progress, but these data are not yet available. As stated in the objectives, there were plans to revalidate CSDC screening instruments; however, data regarding this are also not yet available.

Other CSDC Activities

All five Title VI-G staff members participate in disseminating information about the need for mainstreaming intervention and the CSDC methods and strategy. Channels used to disseminate this information include the following:

- Regional, state, and national conferences
- Newsletters from the state regional Early Education centers
- Meetings with the state Early Education Council
- A CSDC newsletter started in September, 1975
- A CSDC brochure created in March, 1976
- The newsletter of the nonprofit organization in which the CSDC is housed
- A Manpower Training Group that operates from the State Department of Special Education and works to coordinate all special education training institutions in the state
- The workshops which are the replication process and the six or seven slide and tape shows that are part of the workshops

It is felt by the CSDC staff that personal contacts and word-of-mouth information is the most effective form of dissemination. Local newspapers and broadcasting stations have not been used thus far.

Replication is the focus of the entire Title VI-G project. Other than the ten standard workshops offered by the CSDC, two one-time workshops were offered to replication site principals and workshop participants at CSDC headquarters in 1975-76. The CSDC also provides a resource library to all participants.

Contact with parents has varied from site to site. Although a training manual for working with parents was devised in earlier projects, it has not been used in the present project. Thus, there has been little emphasis on any particular parent training techniques. However, those parents interviewed who are aware of the CSDC techniques used in the classroom are generally pleased with the individualized program and extra attention their children have received.

There is no officially functioning Advisory Council. The Early Childhood Coordinator in the State Department of Special Education, the director of the Manpower Training Group, and members of the state's Early Education Council act as an informal advisory council in that they frequently provide consultation. The Director found that it served his purposes better to use key people as consultants when needed than to schedule meetings of a defined body of members.

Discussion

The Project Director feels that although this project had to rework one of its major objectives after the first year, it was probably a blessing in disguise. Reducing the training area of the CSDC from 23 to 8 regions created a much more realistic task for the small staff. A major obstacle was the need to spend the greater part of the first year in making contacts and getting districts in gear for the future year's training. As a result, very few students or teachers received any direct benefits of the project in its first year. However, the fact that the CSDC operates out of a private nonprofit educational corporation with no formal ties to LEAs or the state does not seem to have produced any significant problems in the project's acceptance.

With a more realistic focus the second year, the project was able to provide support to the 36 participating school districts in helping them fulfill the state mandate. Project staff members feel the systematic statewide training network is succeeding as a means to producing self-sustaining teacher training and child service methods within the schools. In fact, several districts indicated that with one more year of CSDC assistance (1976-77) they would be able to provide the early recognition/intervention service on their own.

The well-cultivated interactions with the State Department of Educations's various Early Education agencies has been very useful to the project in its dissemination activities and contacts with LEAs. It is apparent that the CSDC has provided a viable early special education model for the state, since it has become a prototype for further statewide development of such programs.

The CSDC staff feels much was accomplished in 1975-76 in spite of the fact that they were stretched very thin by the demanding schedule and travel that the workshop presentations required. The trainers learned to modify the content of workshops and materials depending on the needs of districts as well as to speed up the presentation of the screening process so that educational plans for target students can be written more thoroughly early in the year, leaving time for at least three supervised revisions. Plans are also being made for next year to do more training in group and communication skills with site coordinators, as well as to have more Field Coordinator Checkpoint Visits to the schools.

Project staff feel a major strength of the training model is the strong classroom teacher orientation of the CSDC training package. Its goal is clearly to make mainstreaming a workable process by stressing the classroom teacher's basic competence but providing her/him with additional diagnostic and planning skills necessary for working with the young learning disabled child.

A true advisory panel has not been in existence during the project nor has there been any stress in the training workshops on parent involvement. Staff are cognizant of these omissions and have plans under way to incorporate both aspects into next year's project.

This CSDC has not been refunded under Title VI-G for 1976-77. However, the state has funded it with Part B discretionary funds. The staff is confident that the changes in program presentation based on last year's experiences and the continuation of the majority of the LEAs in the training program will strengthen the project in the coming year.

PROJECT C

Overview

This CSDC was operated by the county school system in the most urbanized area of a largely nonurban state. This district, one of the most educationally sophisticated and prosperous in the state, has traditionally aided other counties in improving their services. This commitment was reflected in the county's contribution of staff time to the project, freeing federal funds for exclusive use on nonsalary expenditures.

The state itself is mountainous and contains many poor, isolated communities served by school systems that have neither the personnel nor funds to serve all of their handicapped students, despite a 1969 state law requiring special education services in all 54 counties by 1974. Although a large portion of the state budget was devoted to education, the difficulty of providing adequately staffed and financed special programs in poor, isolated areas was a continuing problem. The goal of the CSDC was to help overcome these shortages by providing training and ongoing consultation in the area of learning disabilities to county teachers and later to teams of educators from outlying districts.

The basic model for teacher training used by the CSDC was developed from 1969 to 1972 in a PACE project sponsored by Titles I and III within the home county. When the PACE project ended, the county superintendent (a man with special interest and expertise in learning disabilities) was instrumental in the county's applying for Title VI-G funds to focus the training model on the learning disabled child. CSDC staff members, most of whom were reading specialists, were recruited from the PACE project.

When the CSDC began in 1972, it was recognized that primary reliance for serving learning disabled children would have to be placed on regular classroom teachers, as the county did not have enough specialized personnel to provide services for all of its learning disabled children directly. The solution was to provide classroom teachers with the skills to carry out screening, diagnosis, and remediation on their own as much as possible but to recognize when consultation with a specialist was required to overcome particularly difficult problems.

Therefore, during the 1972-73 and 1973-74 school years, training was offered to regular classroom teachers in the CSDC's home county to provide them with basic competencies in (a) identifying learning disabled children, (b) administering specific diagnostic instruments, (c) prescribing and using appropriate intervention techniques, and (d) recognizing when referral to one of the learning disabilities consultants or other consultants was desirable. The CSDC received Title VI-G monies to undertake replication of this training model throughout the state during the 1974-75 and 1975-76 school years. This replication involved the training of intern teams from other counties, consisting of teachers, principals, special educators, and sometimes parents.

Trainees came to the Center for two one-week sessions early in the fall of the school year. Later, a CSDC staff member visited each county, for one week, to provide follow-up technical assistance to the local teachers. A final one-week session was held at the Center in the spring. Intern teams provided services to 152 students during 1975-76. Although the CSDC kept no records of ethnicity, most students in the counties represented by the intern teams are white.

Funding/Staffing

For 1975-76, the CSDC received about $72,000* under Title VI-G and $25,000 from the county in which it was located. The CSDC staff comprised a Coordinator, eight diagnostic/remedial specialists, a professor of education who serves as a consultant, an administrative assistant, and a secretary. All staff members were employed by the county school system and spent the majority of their time on non-CSDC activities.** Their full salaries were paid by the county; the $25,000 listed above includes that portion of their time spent on CSDC activities. Title VI-G monies paid stipends to intern team members, salaries for substitute teachers when intern team members were away from their home counties for training, travel expenses for

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* As of AIR's visit, projected expenditures for the school year were only about half of this. The CSDC had requested BEH permission to use the excess for a summer program.

**The consultant is employed jointly by the county and a local university. Two-thirds of his time is devoted to the university. The remaining one-third is paid for by the county and is spent on CSDC activities.

CSDC staff to attend conferences and workshops, fees of visiting consultants, and some supplies and equipment. In addition to staff salaires, the home county of the CSDC provided space, materials, audiovisual equipment, filmstrips, and films. Counties which sent intern teams contributed release time for team members to attend training sessions, part of the fee for substitutes, space and materials to set up resource rooms, and the services of school psychologists.

The CSDC received nonfinancial support from a variety of agencies. Federal help came from NaLDAP, which provided information during its visit to the CSDC and through mail and phone contacts; the Leadership Training Institute, which helped in planning the training sessions for intern teams during 1974-75; and the Regional Education Service Agency, which also helped to plan the training sessions, paid for consultants who spoke at the sessions, referred counties to the CSDC for training, and shared materials with the CSDC. The State Department of Education and the CSDC worked together to draw up guidelines for identifying learning disabled children, and a language arts specialist from the State Department helped in planning the training sessions. Otherwise cooperation with the State Department was not as close as CSDC staff would have liked.

Graduate credit was allowed by one local university for attendance at a summer training session offered by the CSDC, while another university sent student teachers to view CSDC activities and placed two of its students as trainees in one of the outlying counties. In addition, CSDC staff members taught learning disabilities courses at one of the universities.

Local service organizations--Kiwanis, PTAs, and Junior Women's Clubs--made or donated resource room materials in several of the counties. ACLD chapters sponsored public meetings, provided speakers, and contributed money to resource rooms in some counties. ACLD involvement was cited as especially important by CSDC staff who felt that the frequent contacts between ACLD representatives and county educational administrators on the one hand, and between ACLD and CSDC personnel on the other, were effective in disseminating information about CSDC services.

Most contacts with other delivery systems were handled locally by the counties and did not come to the attention of the CSDC. An exception is an early childhood diagnostic center that provides consultation and evaluation services and makes recommendations for services to referred children.

The CSDC had an Advisory Council during the years when it served only its home county. When services were extended statewide, it proved difficult to recruit members; and the CSDC eventually abandoned its attempt to form a statewide Council.

Goals, Objectives, and Related Activities

As noted in the Overview, the goal of the CSDC was to help overcome the shortage of trained personnel in outlying counties by providing training to intern teams from those counties. This was intended not only to enhance the skills of trainees in delivering services to learning disabled students but also to provide them with the skills they would need to pass their training on to others. To reach its goal, the CSDC pursued the following objectives for the 1975-76 school year:

- Objective 1: To teach intern teams the skills for proper identification, diagnosis, prescription, and remediation of learning disabilities among school children in their local districts
- Objective 2: To teach the intern teams the techniques and strategies for training their counterparts within their local school districts
- Objective 3: To assist the intern teams in the initiation of training programs in their school districts

CSDC staff felt that Objective 1 was met. Eleven counties sent intern team members for training during the year, and there was follow-up consultation between the team members and the CSDC specialists on a continuing basis. This follow-up consisted of phone and mail contacts as well as on-site visits by the specialists. Objective 2 was largely reached in that intern team members learned how to establish and use Staff Development Centers (described below) and how to develop materials for inclusion in such centers. The third objective was not reached. As far as CSDC staff knew, no training programs had been initiated by returning intern teams, although some team members did give less formal help to fellow teachers. A number of factors beyond the control of the CSDC worked against attainment of this objective: local counties did not have the necessary facilities or resources to set up training centers; the scarcity of special education teachers in the counties required that the time of those who had been trained by the CSDC had to be spent in providing direct services to children; and there was a general lack of funds and other support at the state level to help the counties initiate their own training programs. CSDC staff felt that more communication and guidance from the State Department of Special Education might have alleviated some of these replication problems.

The training process which was the core of the CSDC's activities began with the selection of intern teams from throughout the state. A letter was sent to each of the superintendents of the county school systems, describing the project and inviting their participation. In response to this letter and subsequent contacts, 11 counties agreed to send intern teams for training in 1975-76.* For the CSDC, the ideal intern team consisted of four persons: an administrator, a teacher, a parent, and an aide, all from the same school. In practice, teams did not always have this makeup. Typically, they had two or three members, primarily teachers. Parents, administrators, and aides were less often able to participate.

The first week of training was held early in the fall and covered the following topics:

- Background information about project procedures
- Information about learning disabilities presented by a nationally known learning disabilities expert who discussed identification and assessment procedures, language development, and the teaching of learning disabled children
- The administration, scoring, and interpretation of intelligence, achievement, and diagnostic tests

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*Some counties which would have liked to participate were reluctant to do so for fear of disrupting their instructional programs by releasing staff during the school year. It is for these counties that the proposed summer program was primarily intended.

Approximately one month later, the second one-week session was held, covering the following:

- Ways to organize the special education classroom
- Procedures for individualizing student instructional programs
- Practical ways to implement behavior modification procedures in the classroom

Training was carried out in a classroom that was designed by CSDC staff members to give teachers the same experiences that their students would have in an individualized program. The room was organized into learning stations; each learning station utilized a different learning modality, i.e., direct instruction by a CSDC staff member; reading of printed materials about learning disabilities; viewing of filmstrips, videotapes, or motion pictures; listening to tape recordings; playing educational games; and using flip charts at the "show and tell" station. CSDC staff members had adapted or developed materials in the different media which were organized into the following instructional modules:

- Failure or Individualization
- Diagnosis and Prescription
- Grouping and Scheduling for Individualizing Instruction
- Organizing Learning Centers and Their Materials
- Mainstreaming Exceptional Children

CSDC staff anticipated that five more modules would be developed by participants in the training sessions planned for the summer of 1976.

CSDC staff stressed that in preparing the training classroom they not only wanted to construct an environment in which intern team members could learn diagnostic, prescriptive, and intervention procedures but also to provide team members with a model classroom that would give them suggestions for incorporating the Learning Station concept in their own classrooms. For this reason, CSDC staff attempted to use materials that most classroom teachers would have available in devising games, flip charts, and other materials and in dividing the room into Learning Stations.

The third week of training consisted of visits to the participating counties by diagnostic remedial specialists on the CSDC staff. Prior to these visits, which took place about midyear, intern team members in each county were requested to conduct pretests and posttests on at least two of their learning disabled students. These test results were then used as a point of departure for discussions between the teacher and the consultant.

Among the services rendered during these visits were the following:

- Inservice training for teachers and instructional aides, including procedures for administering and scoring tests and for using remedial materials
- Discussions with county officials concerning guidelines for identifying and serving learning disabled students
- Inservice sessions for all persons in the school system, including central office staff

It should be noted that the activities during these visits included heavy emphasis on training persons in the school systems other than intern team members. These services, requested by intern team members, reflect an adherence to the spirit of Objective 3, even though it proved impractical to meet that objective as stated.

Sessions during the fourth week were devoted to discussions of perceptual and motor functioning, further development of learning stations, and workshops on materials development.

Services to Students

All student services were delivered by members of intern teams working in their home counties. During 1975-76, 152 students received services in this manner. Students served ranged in age from 6 to 15; most were between the ages of 7 and 12.

The definition of learning disabilities used by the state is the same as that incorporated in Public Law 91-230. At the time of AIR's visit, the state was in the process of revising the definition so that it would be stated in behavioral terms. Definitional matters did not affect the operation of the CSDC, as services were provided indirectly, and the definitions in effect in the counties were used.

Intern team members, upon return to their home districts, applied the procedures taught to them during training at the CSDC. Thus, variation from county to county may have occurred from the general procedures described below.

1. When a referral was received, the classroom teacher was sometimes given a checklist to complete, describing the learning problem in detail. This was used as an aid in determining what areas should be pinpointed during testing. At referral, information was collected about academic progress, attendance, health history, standardized tests that the student had taken, and the reason for referral.
2. Next, aptitude, achievement, and selected diagnostic tests were given. If the student had an IQ score of 90 or above and was found to be functioning 2 to 3 years below grade level, then a discrepancy between performance and capability adequate to justify placement for learning disabilities was said to exist.
3. A placement recommendation was then made by the intern team member on the basis of test results and other information that was available (e.g., further tests by a psychologist, physician, speech or hearing therapist, or school nurse; information in school records, etc.).
4. A placement committee was then convened to review the placement recommendation. The committee usually included the intern team member, the classroom teacher, other persons trained in learning disabilities, and a school psychologist, if available.

Parents were involved in each state of the process. Parent approval was required before testing; parents had a right to attend the placement committee meeting; and parent approval was required before a child could be entered into a program. If the child could not be placed immediately, parents had to be notified when a spot opened up and could refuse services at that time.

Before remediation began, an educational plan was prepared. No standard format was used for preparation of these plans in the student records examined by AIR, but most plans contained brief descriptions of instructional activities to be carried out in remediating specific difficulties uncovered during testing.

The amount of remediation given students varied from 15 minutes to five hours a week. Services were given one to one or in small groups. In most cases, a teacher who was on an intern team provided remedial services as an itinerant or resource teacher, but aides and classroom teachers were also involved in some counties. The facilities which were available also varied radically. At best, well-equipped resource rooms were available; at worst, the resource teacher had to undertake instruction in the back of regular classrooms while the latter were in session.

Although teachers who completed the training program were asked to send pretest and posttest scores on their students to the CSDC, the Center was not able to require the collection of control data by the counties. In the absence of such control data, it was not possible for the AIR staff to determine either student progress or teacher effectiveness accurately. Test scores therefore have not been included in this report.

Seven parents were interviewed in this state. All of them reported observing academic improvements in their children, four reported improved self-confidence, four said that their children had developed improved attitudes toward school and school work, and three reported improved behavior. Five of the parents voiced support for the project, and four were able to describe the goals of their children's instructional program and the types of services given.

Other CSDC Activities

In addition to the activities described above, CSDC staff have:

- Sponsored an evening lecture by the outside consultant brought in for the first week of intern team training. This was attended by over 100 persons from surrounding counties.

- Conducted inservice workshops on individualizing instruction for learning disabilities teachers, classroom teachers, and principals. CSDC staff have also used the learning center classroom for training college students. All told, over 350 persons have received training using this classroom.
- Worked to improve their own skills and knowledge. All CSDC staff have attended conferences or workshops either as presenters or participants. Half of them have attended training sessions of three or more days in length. Ideas leading to the development of the learning center classroom were gained at one of these training sessions.
- Spoken at local and national ACLD meetings and have supplied materials to ACLD parents and their children.
- Prepared a newsletter for intern team members to keep them informed of CSDC activities. They have also set up a telephone hotline for use by team members.
- Discussed CSDC activities on local television and radio programs.
- Spoken at teachers meetings in 15 to 20 counties in the state, at meetings of the state branch of the AMA, and at a meeting of optometrists.

Discussion

This CSDC developed an innovative procedure for training personnel from isolated, rural school systems to identify and help learning disabled children and demonstrated that some basic services can be provided in areas where large numbers of highly trained personnel are not available. An outstanding feature of the Center's program was the encouragement given to intern team members to make the most of the resources available to them. This was exemplified in the deliberately simple construction of the training classroom in which commonly available materials were used to show how effective learning environments can be developed with minimal resources.

The major problems encountered by the CSDC resulted from the poorness of many counties in the state and their lack of trained personnel. The effects of these factors on the replication of the CSDC training program has already been discussed. According to CSDC staff, the scarcity of special educators in the state also prevented participation in the training sessions by some counties. Satisfactory substitutes were not available, and teachers could not be released for training. The summer training program was proposed as a possible solution. Many other counties expressed interest in the CSDC training but said that they were one to three years away from being ready to benefit from intern team training.

One of the most critical problems faced by the CSDC, according to staff members, was the lack of coordination at the state level. It was felt that the state might have provided counties with information about alternative funding sources and strategies in the area of special education, which in turn might have provided support for their participation in the training. This situation is expected to improve in the future, but it proved to be a major obstacle to the Center's replication plans.

The CSDC has not applied for refunding under Title VI-G. However, the staff will continue to provide training and resource services within the home county.

PROJECT D

Overview

This CSDC is headquartered at a college in one of the large cities of a southern state. It serves four schools in the local metropolitan school district. In the first year of the project, 81% of the students served were Caucasian and 19% were black and were in grades 1 through 6.

The project was begun in 1974-75 when two education faculty members received Title VI-G funds to "plan, implement, and evaluate a replicable service delivery model system to enhance the development of SLD children and their families." In the first two years of the project, it was expected that a strong, dependable mainstreaming model would be designed and evaluated. Replication in other districts would come later.

An experimental research design of two control groups was established in the public school system to provide a data base for evaluation of the project and to aid in future replication. This data base also produced statistical information concerning specific characteristics of the student population which could be disseminated to those in the field of learning disabilities.

The major activities of the project included comprehensive pretesting and posttesting of experimental students and training in diagnostic/prescriptive teaching and evaluation techniques to the teachers and parents of students in the experimental classrooms. This training was based on an "ecological theory" of educational intervention which emphasizes bringing the child's behavioral competencies and the expectations of key socializing institutions into unison or making a match between the two. The eventual goal was the student's reentry into the mainstream classroom.

Funding and Staffing

In 1975-76, the total CSDC budget was $275,784. Approximately one-third of the budget, or $90,000, was in Title VI-G funds which went to support two Project Directors at 25% time, one full-time project coordinator, two full-time program specialists, one evaluation specialist at 75%

time, one research assistant, and two secretaries. Title VI-G funds also paid for project consultants, staff travel, educational and office supplies, and communications.

The other two-thirds, or $177,904, of the budget is provided by the LEA. Four full-time learning disabilities teachers of the experimental classes are paid with this money as well as other district specialists and administrators. The LEA also provides consumable classroom materials, coordination with district psychological and social work services, and the services of the district's Research and Evaluation Department.

Because the CSDC is headquartered in a university, it receives many substantial side benefits from the institution. The facility in which the project staff are housed is provided by the university. Also, consultation and assistance from staff and faculty at the Child Study Center (a diagnostic/prescriptive facility on campus) as well as from the rest of the university community are always available. Educational materials from the university are also easily accessible to the CSDC. The college's educational journal has served as a forum for several of the CSDC's research papers. One special foundation of the university has also helped fund CSDC staff travel to national professional conferences which are frequently attended by all of the core CSDC staff.

Other federal organizations which have provided consultation and/or assistance in dissemination include NaLDAP, the Technical Assistance Development System in Chapel Hill, North Carolina, and the nearby Regional Resource Center. Staff at the State Division of Special Education have provided similar services.

Two local medical schools have provided diagnostic services in special cases and have included information about the CSDC service delivery model in relevant courses. District, county, and state mental health and guidance services have been used when needed. Local chapters of ACLD and Kiwanis Club have also lent their support to the project.

Goals, Objectives, and Related Activities

For the school years 1974-75 and 1975-76, the following project objectives were written with these groups in mind: the children and families involved in the project, the psychoeducational personnel involved in the project, and the psychoeducational professional community at large.

- Objective 1: To have staff utilize psychoeducational resources of the CSDC and the school system to achieve a better fit between the learning disabled child and his/her major social systems (the school and the family)

- Objective 2: To enhance their professional development to enable them to serve as better behavioral change agents for the children and their families

- Objective 3: To offer a fully developed and evaluated model approach to specific learning disabilities for application in a wide variety of communities

All three objectives were accomplished by the CSDC, in the opinion of project staff. Liaison was established with the public school system, which allowed the CSDC to implement its research design in the four schools receiving project services as well as in four control schools. Although ten public schools in the school district have self-contained learning disabilities classrooms, only eight chose to participate in the study. The CSDC's evaluation specialist then made matched pairs of the schools and designated four to be experimental and four to be control. There were eleven classes in the control schools and ten in the experimentals. In the experimental schools four classrooms were randomly selected to be fully experimental and four were randomly chosen as control classes (henceforth referred to as "partial-experimental" classes to distinguish them from the classes in the control schools).

All 240 of the students in the sample population (made up of students assigned to special learning disabilities classes by the district) were administered pretests and posttests of intellectual abilities, academic achievement, motivation, and self-concept. In addition, the experimental group's four teachers received ongoing inservice training from the CSDC project coordinator and two program specialists, who presented a workshop at the beginning of the year, monthly follow-up workshops, and an end-of-year workshop. Each program specialist would also spend two days a week in each of the experimental classrooms, modeling teaching techniques and providing supervision. Training was focused on (a) in-the-classroom diagnostic techniques or "probes" designed by the project, which pinpointed where a student's skills broke down and (b) individualized, educational planning and teaching which facilitated a positive match between a learner's skills and the environment so as to enhance his/her academic and personal growth. Behavior management techniques, student evaluation, and record-keeping were also emphasized. Parents of experimental group students were also offered a six- to eight-week parent workshop that dealt with the topics of parent/child communication and child management and also provided peer-group support to parents. The parents of children in the four partial-experimental learning disabilities classes were also offered the parent workshops.

The partial-experimental group provided the control on the information diffusion factor that undoubtedly occurred between the four CSDC-trained learning disabilities teachers and the other learning disabilities teachers in the school. With this controlled research design, the CSDC was able to measure the impact on student growth of the CSDC diagnostic/prescriptive teaching approach by comparing students' growth rates across the three sample populations in the areas of intellectual potential, academic skills, motivation, and self-concept.

As a result of Objective 1, the project has a strong parent training component. In the first year, the program was directed and evaluated by a psychologist from the college, assisted by CSDC staff who coled parent groups with parent paraprofessional volunteers. These volunteers all had learning disabled children in the local public school system but not necessarily in the CSDC's program. Parents of students in the CSDC experimental and partial-experimental classes were invited to attend the two-hour weekly meetings which were held in the evenings for a six-week period. Topics covered included child rearing, parent/child communication, and child management skills. However, the main purpose of the group was to provide peer support to parents of learning disabled children. Research revealed that the higher the level of education attained by a parent, the more likely he/she was to find the workshops useful and to remain involved.

The parent group director pointed out that these findings reveal a need for a different kind of workshop that would appeal to less educated parents.

In the second year, the parent program was run completely by four interested parent volunteers who had participated in the previous year's program and had received a brush-up training session at the beginning of the year from the Director. The professional staff were dropped from the program because none were parents. The format and timing of the parent component remained similar to that of the previous year.

The success of the volunteer parent groups is evident in that the local school district has assumed responsibility for the program and will administer it with assistance from state special education funds. Also, a local group of parents of the visually handicapped have started a similar kind of volunteer parent support group.

Other activities were also undertaken by the CSDC to enhance professional development (stated in Objective 2) of district personnel. The CSDC met twice a year with the district's psychological staff to share with them the results and implications of data acquired through the evaluative research. CSDC staff also met with principals on an informal basis in order to keep them informed. The core CSDC staff produced approximately 22 monographs concerning their research findings about the effectiveness of the model as well as learning disabilities characteristics. Three of these monographs have been published in professional journals.

Services to Students

In 1972, the state passed a special education law which stressed mainstreaming of mildly handicapped students. The law did not, however, define or recognize learning disabilities. Thus the CSDC uses the federally recommended definition of learning disabilities.

Soon after the advent of the state law, two faculty members at the college convinced the local public school system of the worth of running a small experimental program to demonstrate and provide evaluation of a feasible mainstreaming model. Because the CSDC is an outside agent providing an experimental treatment to only four of the learning disabilities classes in the district, the district's process of referral, assessment, and placement dictates which students are in the four experimental classrooms. A problem which arises out of this decision-making power is that there are students in the learning disabilities classes which the CSDC staff believe are not truly learning disabled students, as specified by the federal definition. In fact, the CSDC project coordinator estimates that when the CSDC entered the district's learning disabilities classes in 1974, only 67% of the students in the classes fit the federal definition.

There are approximately 13 students in each of the four classes, as recommended by state law. As students are permanently reintegrated into the regular classroom, newly verified learning disabled students take their places in the learning disabilities classes. All told, 90 students were served in the four classes in 1975-76. According to the project coordinator these 90 students are approximately 10%-15% of the total learning disabilities population in the school district. It is his belief that 2% to 3% of the entire 82,000 school population would ultimately benefit from the CSDC's program.

In 1975-76, a battery of pretests and posttests was given to 240 students in all of the participating learning disabilities classrooms. This battery, which was administered by CSDC staff, consisted of the Metropolitan Achievement Test, the Piers-Harris Children's Self-Concept Test, the Modified Intellectual Achievement Responsibility Questionnaire, and the Choice Motivator Scale. Pretest WISC-R scores were available from the previous spring.

In addition to this battery, which would provide program evaluation results, the four experimental classroom teachers gave other tests measuring specific abilities and skills. These tests were used to provide further diagnostic information to assist the experimental teachers in making a compatible match between the students' skill levels, the environment and its resources, and the beginning remedial assignments.

The CSDC has focused on reading and math skills as the prime targets of remediation and has devised criterion-referenced, curriculum-based testing tools known as probes which assist the teacher in placing students at their exact skill level in the available curriculum materials. Measures of the students' work are recorded four times a week on charts, thus providing students with tangible evidence of their success and the areas in need of further attention. The system also allows students a certain amount of choice in selecting exactly which stories or exercises they will complete in order to advance through a level of work. No formal educational plans need to be written when this system is properly used.

The reading system focuses on the comprehension skills of recognition, recall, sequence, and inference and uses commercial reading series. Basic computation skills and the rate at which they can be completed are stressed in the math program. The program was developed by CSDC staff and is made up of sequential exercises which gradually introduce new skills and provide practice in each skill before another one is presented. The CSDC has also adapted a spelling program with probes and devised a complete writing program. Teachers also provide reinforcing activities to students to encourage individual efforts. Contingency contracting is used with some students.

The mainstreaming aspect of the project has evolved over the two years. In the first school year, the students in the experimental classroom were returned on an individual basis to the regular classroom for two hours a day, starting in January. At first, the regular classes were in music, art, and gym. Gradually, time in the regular classroom was increased, starting with the academic subjects that were the least difficult for the learning disabled student. In the second year, students began the same transitional process to the regular classroom in November. Continuous communication was maintained between the learning disabilities teacher and the regular classroom teacher to insure a smooth transition.

In the 1974-75 school year, 35% of the students in the experimental learning disabilities classroom permanently reentered the regular classroom. In 1975-76, this was increased to 65% of the students in the experimental classrooms.

Research conducted by the CSDC's evaluation specialist has revealed that students who are in the gradual transitional stages of mainstreaming show a significant increase in self-concept scores which does not occur with students in the two control groups. It was hypothesized that this increase is due to the students' having two supportive reference groups to choose from, i.e., the learning disabilities classroom where students are succeeding in academics and the regular classroom where they can excel in art, music, etc., thus establishing a strong place in that peer group. Parents of students in the experimental classes who were interviewed noted academic and social/emotional gains in their children and expressed satisfaction with the individualized attention their children received from their teachers.

In 1974-75, students in the experimental classrooms did not show significant score increases on the other tests in the battery. However, in 1975-76, students in the experimental classes did show significant increase in reading scores, thus leading the CSDC to conclude that its experimental reading treatment had a positive impact on students' reading skills and ought to be replicated.

Other CSDC Activities

In its first proposal, the CSDC pointed out that "a two-year project duration is not sufficient for full completion of model development pursuant to effective dissemination." Thus replication was not one of its goals for the first two years. Focus was on the development of a well-evaluated model which could then be field-tested in a few selected sites and later replicated on a large scale. The CSDC recognizes that although the model was designed by a university community it must be replicable at the district's levels of finance and personnel time. In the 1976-77 school year, two nearby counties are planning to serve as field-test sites for the CSDC's service delivery model; other school districts in this and surrounding states have asked to be involved in future full-scale replication activities.

The area of dissemination has been of prime importance to the project, and the majority of the core staff have participated in these activities. NaLDAP has assisted the project by printing several of the project's articles in large quantities and distributing them to interested parties. Project staff have identified two major dissemination targets as well as two significantly different types of information to be disseminated. The first group is school personnel in the district which the CSDC serves. It is important that this group of people be continuously updated on project activities and program evaluation findings concerning the schools involved. Mechanisms by which this is achieved include an in-house newsletter and frequent personal contacts between CSDC staff and/or Advisory Panel members and district personnel.

The other population on which the CSDC has focused its dissemination efforts is the professional learning disabilities community at large in the state, region, and nation. With this group the CSDC has generally chosen to share its research findings concerning learning disabled students. Information regarding program implementation and administration is considered secondary to the research findings because of the general lack of such research in the learning disabilities field. Four program handbooks have been developed and are shared with district personnel as well as other interested parties. These handbooks are an administrative handbook, a parent's manual, a teacher's guide for prescriptive programming, and the full math program developed by the CSDC.

Other channels of dissemination used by the project to share both programming and research information are as follows:

- Local radio and TV
- Local newspapers
- The college's journal of education
- Classes offered at the college
- Professional conferences--local and national
- Three slide/tape shows for data presentation

It is the general feeling of the CSDC staff that their process of dissemination needs further refining, and plans have been made for the coming year to better coordinate this program.

The project's Advisory Panel plays an important role in the project. It meets quarterly and is composed of the following people: one representative each from the college's Departments of Special Education and Psychology, and the research institute; two representatives from the local Association for Children with Learning Disabilities Chapter; the director of special education, and a psychologist from the school district.

The members keep the CSDC informed about relevant issues at the college, district, local community, and state level so that the CSDC can best meet the needs and requirements of the community it serves. Members also disseminate information regarding the CSDC to their various constituencies and provide access to community agencies.

Discussion

This CSDC has integrated research and practice by designing a useful, action-oriented, research model which appears to have provided answers to real education problems. For example, although the project's process of mainstreaming at first met with frequent teacher resistance, many non-CSDC, self-contained learning disabilities classroom teachers are in fact mainstreaming their students back into the regular classrooms in the 1976-77 school year. Project staff report that this process was accelerated because the CSDC's data, which were shared with the district, have strongly indicated a positive impact on self-concept in those learning disabled students who were mainstreamed.

Results of the CSDC's research on learning disabilities characteristics have led the district to revise its learning disabilities screening/diagnostic battery so that it is more likely to identify learning disabled students only. This has created smaller learning disabilities classes and led to the provision of other special services for non-learning disabled students.

Other school districts and people at the state level are regarding the project's mainstreaming model as replicable and are beginning to take action in that direction. In 1976-77, two counties will be field-testing (replicating) the model with ongoing technical assistance and evaluation from the CSDC and financial support from the state. The ultimate goal of the state and the CSDC is to have statewide replication, thus assisting the districts in fulfilling the state's mainstreaming mandate and perpetuating a model which has proven to be functional in meeting the needs of learning disabilities teachers, students, and parents.

In the summer of 1976, the CSDC was notified by BEH at a very late date that its Title VI-G funds had been discontinued, and many of the key staff members were released. After further review in the late summer, BEH decided to overrule the previous decision and refund the project for 1976-77.

PROJECT E

Overview

Located on the outskirts of a large metropolitan area, this CSDC is partly industrial and partly middle-class residential in character. The Center operates within a statewide CSDC system. The Center itself consists of two intensive service centers within one school district: one center serves 30 elementary schools, while the other serves 10 secondary level schools. Together the two service centers focus primarily on students in grades kindergarten through 8. Their ethnic composition is 58% Caucasian, 36% Hispanic, 3% black, and 3% other minorities. The project has been in operation four years, the last two under Title IV-G contract funding.

Essentially an intervention project, the CSDC attempts to identify student needs and to provide appropriate educational prescriptions which can be implemented in the regular classroom, thus avoiding the need for placing the student in a special class. The Center has developed a clearly defined model which involves the following phases:

Phase I	Referral by teacher and in-class observation of child by CSDC staff member to obtain "base rate" information on performance
Phase II	Temporary ten-week assignment of child to the intensive Center where he or she receives a variety of assessments from which appropriate educational prescriptions are planned and tried out
Phase III	Ten-week follow-up of child in his or her regular classroom. This phase emphasizes the implementation of the extensive educational plan that was worked out in the Center.
Alternative	strategy (Phase IV) - Teacher assistance provided on a telescoped two-week basis to students who are referred but not admitted to the intensive Center. Phase IV is aimed at helping the teacher to improve his or her own

skills in dealing with a student who is underachieving or otherwide does not meet the criteria for Center services.

Other outstanding features of the CSDC are its strong parent training component and its dissemination component, particularly the descriptive booklets developed by the project consultant from a nearby university.

Funding/Staffing

The Center operates on a budget of $174,383. Of this, $28,813 comes from Title VI-G, $26,392 from Title VI-B, and $117,178 from other state and local sources. The Title VI-G funds principally pay for the services of an educational specialist (for dissemination out of the district), for some clerical time, for out-of-district conference expenses, and for instructional supplies and printing.

The Child Service Demonstration Center coordination is accomplished by the district's Director of Pupil Personnel Services. For the 1975-76 school year, a full-time educational specialist performed the dissemination role; clerical support consisted of one full-time and one half-time person. An expert in learning disabilities was brought in for CSDC staff development, for consultative suggestions on procedures when difficulties were encountered, and for preparation of booklets describing the CSDC services.

Each of the two centers within this CSDC has the full-time services of an educational specialist and a resource teacher, five hours of daily help from an instructional aide, and twice-a-week visits by a school psychologist. As needed, a school nurse and speech therapist participate in diagnostic activities. Volunteers are also involved in supportive activities in each center. (In 1975-76, 5 adult volunteers, 13 cross-age tutors, and 4 student teachers gave assistance.)

It should be noted that the staff have been divided into teams according to the two center locations and to the grade levels of students being served. This facilitates the grouping of relevant instructional materials and the structuring of alternative educational approaches to a child's level of maturity. Although directing two physically separated centers, the coordinator has assured maximum continuity among the educational specialists so that all are delivering comparable services and can give backup help to each other as needed. Thus at the end of the sixth-grade year, a student who has received diagnostic and prescriptive services at the kindergarten through grade 6 center can be followed up effectively in his or her seventh-grade classroom by the education specialist assigned to the junior high center.

Goals, Objectives, and Related Activities

The major objectives of the project include (1) development of assessment and educational plans for each student in the intensive service center; (2) improvement of adaptive and academic performance of children served; (3) improvement of specific skills, of receiving teachers through inservice activities (e.g., assessment skills, reinforcement procedures, etc.); (4) implementation of the home behavior change program designed by parents in parent education activities.

In March of 1976, a state audit team reviewed the progress made by the Center toward its goals. Although their findings could not include year-end data, it is useful to note that the audit team

- Commended the staff on the operation of the CSDC, referring to it as an "outstanding program for dealing with students having learning disabilities" and commenting that both centers were doing an "excellent" job
- Praised the CSDC on the quality of its inservice program for the 40 participating teachers
- Recognized an outstanding and beneficial working relationship between the consultant to the CSDC and the CSDC staff
- Termed the parent training program "excellent"
- Commended the staff for dissemination efforts

The staff themselves are pleased with the operation of the CSDC, although it should be noted that this positive attitude was felt most strongly in relation to the provision of direct student services. However, out-of-district efforts, which were not as central a goal, were not viewed by the staff as being altogether successful and rewarding. In this regard, it should be kept in mind that Title VI-G accounts for only one-sixth of the CSDC funding and is directed toward dissemination, while two-thirds of the funding is supplied by local and state sources for instructional purposes. It is reasonable, in this context, that the major effort would be expended on student services and inservice teacher training within the district.

Services to Students

Seventy-two students a year are accepted into the intensive service center, and an additional 30 or more are served through an on-site (in regular classroom) assistance program for teachers. Three times a year, each of the two centers (elementary center and junior high center) accommodates a class of 12 students.

Students are not labeled as learning disabled as a prerequisite for CSDC services. Rather, students served are those who may have a learning disablement, but who may also be adequately served in the regular classroom environment if the Center is able to assess their problems and to write appropriate educational plans. In this state, educational handicaps and learning disablements are overlapping categories. The state definition for learning disabilities is as follows:

(1) Specific learning disabilities in the psychological, mental, or physiological process which involve interference in understanding spoken or written language. Such learning disabilities include, but are not limited to, those sometimes referred to as perceptual handicaps, minimal brain dysfunction, dyslexia, dyscalculia, dysgraphia, or communication disorders, except aphasic as defined in Section 3600(g) of this title.

(2) The specific learning disabilities are of such severity that they interfere with the learning of the basic skills expected of pupils of similar age, and evidence is presented that upon amelioration of such disabilities a favorable prognosis may be made for the reduction of the discrepancy between the pupil's ability and level of functioning in the learning skills.

(3) Where the general level of academic functioning is below expectation for the pupil, such delay shall not be attributable to mental retardation for academic learning.

(4) The specific learning disabilities shall be determined by a complete evaluation accompanied by recommendations for the amelioration of the learning disorder that can be carried out within the class or program recommended.

During the 1975-76 school year, some 102 referrals (nominations or requests for service) were made by classroom teachers; 3, by parents; 2, from student self-referrals; and 5, from the school district's special education admissions and dismissal committee. This committee (consisting of the coordinator of special education, a school nurse, a regular teacher, a special education teacher, a special education psychologist, a guidance psychologist, and the parent) is also directly involved in any placement decision when the centers feel that upon completion of the ten-week program a particular student should not be returned to the regular class but instead should enter one of the district's special education classes for the educationally handicapped/learning disabled.

Within five days after referral, one of the educational specialists observes the student in his or her regular classroom in order to collect baseline data and to assess student performance prior to placement in the intensive center. The assessment is focused on behaviors identified by the referring individual, particularly the student's pattern of attending to tasks, his or her interactions with peers and the teacher, and on the context in which the instruction takes place. This observation is made over one to three part-days.

This preliminary assessment involves the use of the following:

- A School Observation Scale in which some 50 possible behaviors are rated for frequency of occurrence, including 10 related to motor coordination/activity, 8 related to attention/distraction, 9 related to perceptual/cognitive/communicative learning, 12 related to emotional stability, and 11 related to personal/social considerations. Additionally, 13 other factors are rated as to whether the student exhibits the characteristic more or less than the average.

- An Observation Form in which a chronological, minute-by-minute accounting of observed behaviors is logged and tied to particular environmental events

With assistance from the teacher, the educational specialist then sets desired changes in behavior for task skills, social skills, pre-academic skills, and academic skills. These serve as important criteria, influencing what additional assessment and educational programming is to be emphasized during the ten-week assignment in the intensive service center. Parent permission is required prior to admission to the Center.

Within the Center, standardized assessment includes varying combinations of the following tests, depending on the individual student's needs:

Peabody Individual Achievement Test
Peabody Picture Vocabulary Test
Key Math
Wide Range Achievement Test
Survey of Primary Reading Development
Gates-MacGinitie Reading Test
Diagnostic Reading Materials - Spache
Comprehensive Tests of Basic Skills- Math Inventory
EDL - Dolch Sight Words
Wepman Auditory Discrimination Test

A major activity within the ten-week (4 hours, 5 days a week) program is the development of educational procedures (contingency management) which relate to the baseline assessment and standardized test results and which emphasize task completion and accuracy. Because the student works with the resource teacher and the educational specialist over a long enough period, tentative plans can be formulated, tried out, and revised until an optimal approach for each student is developed. Throughout, continued evaluations of the student's behaviors are recorded (according to the frequency of their occurrence) and are used as an indicator of whether the educational plan is having the desired effect.

Before the end of the student's stay at the intensive Center, a substitute teacher replaces the regular teacher for one to three days so that the regular teacher may observe the student at the Center and thereby ease the student's return to the classroom. Initially, this observation is accomplished through one-way mirror as the teacher is guided through observation/rating exercises. After formulating an objective based on this observation, the teacher plans contingency management procedures, tries them out with the student at the Center and is familiarized with relevant instructional materials and alternative strategies. Follow-up visits to the regular classroom are then made by the educational specialist who monitors program implementation and assists in any necessary program redesign.

Each year, the state CSDC system collects representative data on student gains from each participating center. Table 1, which is adapted from the state summary of results, reflects student gains in this Center. Results are mixed for the few cases shown here; although some students appeared to make sharp gains, others appeared to show a net loss in gain rate.

It should be noted, however, that the gain (or loss) in relation to baseline performance in reading and mathematics as shown in this table is not the only indicator of changes that could be beneficial to the student. Other evidence of change comes from teacher appraisals after the student has returned to the classroom. Three such appraisal forms for students in AIR's random sample (who were in the ten-week class following the audit) are summarized in Table 2.

Other CSDC Activities

Training of parents and their subsequent involvement in modifying the students' behavior is an important part of the CSDC program. Parent education groups are formed concurrently with each new class of students. Five nightly meetings are held over the ten-week period, and all parents are encouraged to attend. Six to 11 of the possible 12 typically have attended. Group sessions stress (a) building positive group feelings, developing problem-solving viewpoints, and learning a common vocabulary and (b) implementing a home management program using contingency reinforcement procedures. AIR interviews with parents confirmed that these sessions were valued by the parents.

Staff development activities have been another highlighted activity of the CSDC. These occur at the request of school principals and consist

TABLE 1

Gains of Students Served by Center, Adapted from State Data Sheets

		Part day in Regular Class-Part day in LD Group				Full-Time Regular Class			
Grade Level	Test	n	Base Gain Rate[a] X̄	Months[b] X̄	Gain Rate[c] X̄	n	Base Gain Rate X̄	Months X̄	Gain Rate X̄
1-3	Reading Recognition	1	1.8	7.0	1.6	6	1.5	7.8	1.6
	Reading Comprehension								
	Mathematical Concepts								
	Mathematical Computation	1	2.1	7.0	0.5	6	1.6	7.8	1.1
4-6	Reading Recognition					3	0.5	8.7	2.6
	Reading Comprehension								
	Mathematical Concepts								
	Mathematical Computation					3	0.8	8.7	0.7
7-9	Reading Recognition	1	0.5	8.0	3.0	7	0.7	6.0	2.7
	Reading Comprehension								
	Mathematical Concepts								
	Mathematical Computation	1	0.8	8.0	2.5	7	0.6	6.0	2.0
10-12	Reading Recognition								
	Reading Comprehension								
	Mathematical Concepts								
	Mathematical Computation								

[a] Base gain rate $= \dfrac{\text{Pretest}}{\text{months of instruction since 1st grade entry}}$

[b] Months = months of intervention instruction

[c] Gain rate $= \dfrac{\text{Post-pre Test}}{\text{months of intervention instruction}}$

TABLE 2

Teacher Appraisals of Changes for Three Students

Student	Problems	Rating	Teacher Comment
#1	1. Off task and non-completion of tasks	No longer exists	"Is a different boy since being in center."
	2. Difficulty in following directions	No longer exists	
	3. Low academic achievement	Better	
	4. Poor peer relationship	No longer exists	
#2	1. Off-task behavior	No longer exists	"Shown great improvement in all areas, academically and socially. Likes school now."
	2. Easily frustrated	No longer exists	
	3. Poor self-concept	No longer exists	
	4. Poor academic progress	No longer exists	
#3	1. Non-completion of tasks	About the same	"Has completed little work last 5-6 weeks. Probably my fault when I didn't call you the first day he didn't complete his work. I thought he would change."
	2. Easily distracted; off task	About the same	
	3. Difficulty following directions	Better	
	4. Poor self-concept; give up easily	About the same	

of three meetings with faculty for one hour after school. Their purpose is to acquaint teachers with observational procedures and management techniques.

Replication has proceeded relatively slowly. During the 1974-75 school year, a neighboring district was fully involved and participated in the full range of CSDC activities. The other district no longer maintains this relationship but has continued to provide student services that reflect CSDC procedures. Some 60 teachers and psychologists have received replication training to date, roughly half of these in the last year. Two to four follow-up visits are made to the districts by a CSDC educational specialist. Implementation within the districts has not been uniform, partly because of the lack of release time for teachers in the adopting districts.

Coordination with other agencies has been limited. Help in setting up a professional library has been received from a satellite center of the Special Education Instructional Materials Center serving this region. Two CSDC staff attended a workshop conducted by NaLDAP. Some instructional materials have been obtained through a state parent organization concerned with neurologically impaired children.

The CSDC has prepared dissemination booklets which describe (in clear and complete fashion) the major project components, the sequence and basis of activities undertaken, and the forms, materials, and tests needed for the model. These were conceived with the aid of the project consultant and are, in themselves, a valuable resource. Letters, brochures, and telephone contacts are the principal means for disseminating information about the CSDC, with letters having been sent to some 95 school district administrators in the greater metropolitan area proximate to the Center.

No local Advisory Council exists, and little direct impact on CSDC activities has resulted from the meetings of the Advisory Council for the state system as a whole.

Discussion

- The strength of this CSDC program rests in the thoroughness of assessment and educational planning for referred students, including balance between ten-week intensive diagnosis and prescription in the intensive Center itself and on-site assistance to teachers whose referred students have not been assigned to the Center.

- Staff development and parent involvement are two other strong aspects of the center, while replication seems to be only marginally successful.
- Booklets describing the CSDC operations and components are functional both as training aids and dissemination materials. They are one good indication of the CSDC's effective utilization of consultant help.

This Center did not reapply for Title VI-G support and will deemphasize its out-of-district efforts in the 1976-77 school year. In-district services to students and teachers will continue in a manner essentially similar to that which was used in 1975-76. Local and state funds will be used for this purpose.

PROJECT F

Overview

This CSDC implemented a program for adolescent learning disabled students in five widely scattered sites in one of the largest states. The sites were selected to provide a variety of demographic and student characteristics.

- Site 1 is a medium-sized city with a large Hispanic population.
- Site 2 is a small town in a rural area; most of the population is Caucasian.
- Site 3 is an affluent suburb of a large city; there are no minorities in the program.
- Site 4 is an urban area; more than half of the population is black.
- Site 5 is a rural, sparsely settled area with a mixture of Caucasian, black, and Hispanic inhabitants.

This case study is based on information collected in visits to Sites 4 and 5. While contextual variables differ, the objectives and activities of the project were largely the same across sites.

This state first funded projects for students with language and/or learning disabilities in 1970-71. In 1972, the state education agency determined that only three of the funded projects were targeted at the secondary level. The decision was made to establish a development/demonstration/service project in one of the high schools of the state. This project was begun in 1972-73 with local and state support and funding from Title VI, Parts B and G.

The goal of this original CSDC was to develop, test, and refine an educational intervention model for Language and/or Learning Disabled (L/LD) students consisting of (1) an effective assessment battery, (2) exportable instructional materials for different learning modalities, and (3) an instructional management system to deliver services and resources to a mainstream classroom. Most of the developmental work was done by teachers at the high school. At the end of two years, the state's evaluation showed that students in the project had made gains in nearly all academic areas, and absenteeism rates had decreased. In 1974-75, the state received a Title VI-G contract to replicate the project in the five sites listed above.

The system being replicated for the past two years, while including the three main elements of the original project, was focused largely on the use and refinement of the instructional materials. These consist of 30 minimodules in the three academic areas of language arts, math, and science. The materials were designed to be individualized, multisensory, and of high interest to underachieving high school students. Each content area had 10 minimodules containing teacher and student manuals and appropriate overhead transparencies, filmstrips, audio cassettes, ditto masters, and student pads. Most modules had pretests and mastery tests. Resource teachers used the materials with identified students in both regular classrooms and resource rooms. They supplemented but did not replace the regular curriculum. Related products of the project were two teacher-training modules consisting of information on language and learning disabilities, simulation exercises, and reading materials.

Although the project began in 1974-75, it was not fully operational at the five sites until the 1975-76 school year. Difficulties were encountered in getting started during the first year because of late notification of funding, the time required to select the representative sites, and the problems associated with large-scale screening and testing of students at the high school level. Some of the effects of these problems are discussed below.

During 1974-75, 2,733 students who were 15 years old were screened at the five sites, and 250 (50 at each site) were selected to receive services which began in April of that year. In 1975-76, approximately 3,000 students were screened, and 320, including 70 students who had been identified in the first year, were selected for participation in the project.

Funding/Staffing

Total budget for the project in 1975-76 was $395,500, of which $150,582 was Title VI-G money. These funds paid the salaries of the Project Director, a secretary, and five coordinators who were located at the five sites. This part of the budget also provided money for travel and supplies.

Title VI-B funds in the amount of $75,000 were used to subcontract the services of a nonprofit educational development laboratory to provide training for the staff; to publish the materials in a finished, multimedia format; and to evaluate the project.

State funds paid the salaries of three teachers and two aides at each of the five sites. The state also allocated $1,000 to each of the 15 teachers for their use in obtaining consultant services and materials. Total state funding was $190,000 in 1975-76.

Regional Resource Centers within the state provided support in the form of materials and sponsorship of staff conferences. The project received help also from the state rehabilitation commission which served as a resource for students in need of vocational counseling and jobs. Local school districts committed facilities and equipment to the project and provided fringe benefits to teachers in the form of salary supplements and paid time-off to attend meetings about the project. Four of the sites utilized parent volunteers.

Goals, Objectives, and Related Activities

This project had four main objectives, or priorities, during the two years of contract funding:

- To screen for learning disabilities all 15-year-old students in participating districts and perform in-depth appraisal of those who appeared to be learning disabled
- To provide educational assistance for identified students by use of special learning materials in language arts, math, and science
- To demonstrate an instructional system that would involve both regular and resource room teachers and that would provide extra help for identified students in either setting
- To demonstrate and replicate the project through the involvement of five "observer" schools at each site who would be expected to initiate the program in their own school districts

A number of obstacles hindered the full attainment of all four objectives. One of the most critical problems, from the point of view of the project administrators, was the late notification of funding in the summer of 1974-75. A project director could not be hired until August, which delayed subsequent planning and the selection of the five sites. Consequently, project teachers and coordinators were not recruited until the middle of the year.

A second major problem during the first year was the extensiveness of the screening battery given to all 15-year-olds in participating schools. This battery--which included standardized achievement and intelligence tests, tests of sensory deficits, and individual intelligence, aptitude, and diagnostic tests--encountered resistance from both students and administrators at project schools. During 1975-76, therefore, initial screening was limited to a review of cumulative records by the project coordinator to identify those students for whom there was an obvious discrepancy between achievement and capability. Teacher referrals were also considered in the screening process.

Approximately five hours of in-depth diagnostic testing was then given to students who were thought to be learning disabled on the basis of the review of records. Testing was stopped at each site after 50 students had been selected, although it was acknowledged that many more students would have been eligible for the project. Even the reduced testing schedule encountered resistance in at least one of the project schools where students were not released from classes for the tests. At this site, testing was done before and after school and on weekends and vacation periods.

Integration of the minimodules with the regular classroom curriculum also posed problems in a number of cases, most of them having to do with the nature of programming and scheduling at the high school level. In line with the mainstreaming philosophy of the project, identified students were not segregated by class, and project teachers had difficulty getting to all the classes in which the students were enrolled. At the two sites visited, for example, project students were in both freshman and sophomore classes and in basic, regular, and advanced tracks. As a result, many of the project students had only limited contact with the project teachers in one of two subject-matter areas.

A further restriction on using the minimodules in the regular classroom was the necessity of matching the modules to the lessons and materials being used by the regular teacher. This was not always possible to do, although some teachers released students to work on the modules in the resource room. There also was indication of some resistance to the materials by some students and regular teachers who felt they were too "easy," although project teachers had been working to overcome this resistance. As a result of these implementation problems, achievement data to measure attainment of objectives were analyzed for only 211 students, instead of 500 as originally planned. At none of the sites were the teacher-training modules used according to the project design.

The original design of the project involved the diffusion of the materials and instructional plan through the selection of five observer schools in the vicinity of each of the sites. These schools were invited to visit the project periodically with the expectation that they would then plan to implement the program in their home districts. Unfortunately, this objective was not met mainly because of the delay during the first year in getting the program into the classroom. Although observer schools were selected in 1975-76, it proved difficult for many of the districts to release teachers for the purpose of visiting the project schools. Also, uncertainty about project continuation and the availability of the minimodules hindered their full participation. As of the end of the 1975-76 school year, there had been no replication although several schools had sent observers to the project sites and had indicated an interest in replication and in using the materials.

Services to Students

According to the Project Director, all the participating districts provide language/learning disability services at the secondary level, and the CSDC services constituted an addition to the regular program.

The state definition for L/LD, which is comprehensive in nature, is as follows:

> Language and/or Learning Disabled children are children who are so deficient in the acquisition of language and/or learning skills including, but not limited to, the ability to reason, think, read, write, spell, or to make mathematical calculations, as identified by educational and/or services for educational purposes. The term language and/or learning disabled children shall also apply to children diagnosed as having specific developmental dyslexia.

In selecting students to participate in the project, the additional specific criteria were applied:

- They should be 15 years old as of the beginning of the school year.
- They should be selected regardless of ethnicity or sex.
- Their overall intellectual functioning should not be more than two standard deviation units below the norm of the general student body.
- They should not be eligible for services provided specifically for the mentally retarded, physically handicapped, auditorially handicapped (deaf), or visually handicapped (blind).
- They should not have deficits which were solely attributable to a different cultural life style, a lack of opportunity to learn, or not having achieved from previous educational experience.

In addition students had to exhibit the following:

- A three-year deficit in one or more of the basic psychological learning processes, such as hearing, sight, intersensory integration, and concept formation
- A difference of two or more years between actual grade equivalent scores in reading comprehension or mathematics skills and the expected grade equivalent scores based on the student's mental age
- A four-year discrepancy from the national or local norm of the academic achievement level of his age group

During the first year of the project, all 15-year-old students in the participating districts were tested to determine if they met the criteria. The second year, school counselors and project coordinators reviewed cumulative records and selected students for the in-depth appraisal, which included tests of intellectual functioning, learning aptitude, and math and reading skills. Physical examinations were required as well as vision and hearing screening. Test results were reviewed by a committee consisting of a school adminstrator, the project coordinator, the school psychologist, the nurse, and sometimes the parent. Parental permission was required for both testing and entry to the project.

The educational services delivered to students accepted into the project varied both in degree and kind, depending on student need, on class schedules, and on the receptiveness of the regular teacher to the materials and to the assistance which was available from the project teachers. As much as possible, the project teachers (who were known as "helping teachers") would introduce the materials in the regular classroom and provide resource help to the regular teacher as students used the modules. Often the project teachers also would work with students other than those in the project. Individual help was also available to students in the resource room. Exhibit A on page F-8, a replica of an educational plan used at one of the sites, indicates the variable nature of the project teacher's role.

Evaluative data on the effectiveness of the materials were collected from project teachers by means of end-of-module questionnaires, and the analysis of student performance on a standardized achievement test. Part of the evaluation design is shown in Exhibit B, page F-9. In addition to academic gains, it was hypothesized that students who participated in the project would (a) increase their attendance rates and (b) decrease their dropout rates.

Table 1 on page F-10 from the project's final report shows that the project did meet two of three achievement gain objectives for Cohort 1 and all three objectives for Cohort 2. Other findings were the following:

- Attendance rates of project students were higher than those of comparison groups in two of the five sites.
- Fifteen-year-old project students dropped out of school less frequently than all 15-year-olds enrolled in project schools.

EXHIBIT A

Educational Plan

Specific Skills To Be Mastered	Content Area To Be Emphasized	Recommended Teaching Techniques	Specific Materials To Be Used	Recommended Classroom Management Techniques
Regular Curriculum	English	Mainstream Classroom	Regular Texts	Grades to be monitored by project teacher
See English Dept. Curriculum Guide		Project teacher to present some minimodules to entire class	Project Language Arts Minimodules	Individual help with classroom if needed
Minimodules: Vocabulary Development X Comprehension IV, VI Analytical Reading I, II		Project teacher to serve occasionally as helping teacher to entire class		Presentation of minimodules when they correlate with regular curriculum

EXHIBIT B

QUESTIONS OF INTEREST	INSTRUMENTATION	DESIGN CONFIGURATION	DATA ANALYSIS MODEL
1. Do high school students, in each of two cohort samples (see Design Configuration), who have been diagnosed as learning disabled and who are exposed to one or more instructional sequences in each of five secondary schools. meet the following expected outcomes: a. 90% of the students will demonstrate a grade equivalent gain in one or more of the following academic subjects--language arts, science, and mathematics--at a rate of 0.8 grade equivalents per year? b. 75% of the students will demonstrate a grade equivalent gain in one or more of the three subject areas at a rate of 1.0 grade equivalent per year? c. 25% of the students will demonstrate a grade equivalent gain in one or more of the three subject areas at a rate of 1.2 grade equivalents per year?	1. Stanford Achievement Test Battery (SATB)--A comprehensive academic achievement battery consisting of ten subscales in four general areas--language arts, mathematics, science, and social studies. Subscale scores may be expressed as grade equivalents. Students will be administered the SATB appropriate to their reading comprehension level as determined during the screening and appraisal process. The 1964 edition-Form W or the equivalent 1974 edition-Form A may be administered.	1. For each of two cohorts within each of five test sites: $I : 0 \begin{vmatrix} X_L \\ X_M \\ X_S \end{vmatrix} 0$ where: I = identification as a target student 0 = administration of the SATB; and X_i= exposure (x) to one or more instructional sequences (i) designated by subscript L for language arts, M for mathematics, and/or S for science. Samples: Cohort 1 consists of 16-year-old students who were identified as LD during the spring of 1975. Cohort 2 consists of 15-year-old students who may be identified as LD in the Fall of 1975 prior to instructional exposure. Each cohort is anticipated to consist of approximately 50 students in each of five test sites--a total of approximately 500 students.	1. The project criterion will be considered to be achieved if each of the conditions specified in evaluation question of interest #1 are met. The replication criterion will be considered to be achieved if the following SATB results from the pilot test site are duplicated: the following percentages of pupils demonstrate an average grade equivalent (GE) gain at the rate of 1.0 GE per year. Language Arts- 51.0% Mathematics - 42.3% Science - 51.4%

TABLE 1

Number and Percentage of Target Students Exceeding Stated Grade Equivalent Gain Objectives on the Stanford Achievement Test in One or More of Three Subject Areas

Cohort 1	16-Year-Olds Exceeding G.E. Gain Criterion	
Rate of G.E. Gain	Number	Percent (of 60)
Greater than 0.8 G.E./Year	53	88.33
Greater than 1.0 G.E./Year	53	88.33
Greater than 1.2 G.E./Year	52	86.67
Cohort 2	**15-Year-Olds Exceeding G.E. Gain Criterion**	
Rate of G.E. Gain	Number	Percent (of 151)
Greater than 0.8	136	90.07
Greater than 1.0 G.E./Year	135	89.40
Greater than 1.2 G.E./Year	127	84.10

NOTE: Numbers and percentages reported are cumulative and therefore do not total to 100%.

- Project teachers were generally positive in their perceptions of the minimodules.

Other CSDC Activities

This CSDC had no formal training program. However, project coordinators and teachers attended various workshops sponsored by the development laboratory, the regional center, and the state education agency to learn about the materials, the screening process, and strategies for serving the adolescent learning disabled student. Each site had two to four inservice days a year on topics such as the minimodules and individualizing in the classroom. Both project and regular classroom teachers attended these inservice sessions.

Parent involvement at the two sites visited occurred primarily at the time of student testing and entry to the project, when parent permission was obtained. Parents were also being contacted at the end of the year to discuss student progress and future placement. Project coordinators had made home visits to parents who could not come to the school. One of the sites had invited all parents to an open house which extended over a two-day period, but the attendance had been disappointing.

Nine parent interviews were conducted at the two sites. Most of the parents were supportive of the project goals for mainstreaming, although they exhibited little understanding of specific project activities. Four parents reported their only contact with the project was the initial interview at which their permission was requested and the interview with AIR visitors. Four of the parents felt they had not been well informed about the project; three of them indicated their son or daughter was not aware of receiving any special help. In spite of the general lack of awareness, all of the parents except one had noted some progress over the year in their children's behavior, including improved grades, self-esteem, and attitude toward school. Only one mother had observed no positive changes in her son.

Prime dissemination targets for this CSDC were other educators within the state, especially teachers and principals at the observer schools. Special presentations were held for these schools, and they were invited to participate in inservice training at the five sites and to observe the minimodules being used in the classroom. Coordinators were also responsible for disseminating information about the project to all teachers in five sites as well as local civic organizations and PTAs. Information about the project appeared in newsletters published by the regional service centers and by NaLDAP and in local newspapers at two sites.

Each of the five sites had a local Advisory Committe whose main function was to help in the dissemination of information and creation of community awareness about the project. There was also a State Technical Advisory Committee, composed of administrators from the cooperating agencies (development laboratory, regional service center, and state department of special education), which provided general direction and decision-making in such matters as budget preparation, state-wide coordination of the project, and the appraisal process. The Project Director reported to this group.

Discussion

The problems encountered by this CSDC in implementing its full project design at five sites illustrate at least three obstacles to the assessment and remediation of learning disabled adolescents:

- The difficulty of scheduling an extensive diagnostic testing program at the secondary level
- The resistance to additional testing on the part of students and administrators
- The difficulty of incorporating remedial materials and strategies into the regular curriculum of mainstream high school classrooms

Despite its problems, the CSDC did report attainment of several of its major objectives. According to the project's final evaluation report, the findings should not be considered conclusive, since they were based on data gathered from a very small portion of the intended target audience in a limited number of sites. However, the evaluator concluded that the results of their studies did tend to indicate that the project is replicable with a potential for beneficial influence on the education of learning disabled students. The evaluators have recommended that additional materials be developed, that further study of the screening and appraisal process is warranted,and that the observer school approach, as a strategy for dissemination, is worthy of future investigation.

A proposal was submitted to Title VI-G for state-wide dissemination activities during 1976-77 but was not funded. However, the state education agency, which holds a copyright on the minimodules, has given multiple copies of the materials to each of the 20 regional centers within the state, where they will be available on a lending library basis to interested districts.

PROJECT G

Overview

This CSDC, which serves the school districts of six counties and one town, is located in a rural area more than an hour's drive from the nearest city. The few small towns are widely scattered, and many students are bused to their schools. There are no big industries in the region, and many of those who are employed must commute outside of their home counties to work. According to the 1970 census, nearly 20% of all families in the six counties had incomes below the poverty level. The percentage of black children in the school-age population ranges from 19% to 78% in the participating districts, averaging about 50% overall. The rest of the population is predominantly Caucasian, with a few native Americans. Special education services in the area, other than those provided by the CSDC, are comprised almost entirely of services to mentally retarded children. In 1972-73, from 28% to 100% of the children receiving special education services in the six counties were black; however, the ethnic distribution of children in the CSDC program is more nearly representative of the population as a whole.

The CSDC began in 1974-75 with funding from the state, local districts, and Title VI-G. Prior to that time, there were no instructional services for learning disabled (LD) students in the area. The initial thrust for the project came from the State Department of Special Education, which sought to demonstrate the feasibility of a regional approach to the provision of services in special education. The underlying rationale was that in a rural area certain programmatic and support services can only be provided through the cooperation of two or more districts. The Center is now (1976-77) in its third year of contract funding under Title VI-G.

The main component of the CSDC is the provision of direct services to learning disabled students. Each of the seven participating districts is allowed to send a certain number of students to the Center for diagnosis. The number is based on the district's contribution and number of students. Diagnosis consists of intensive observation and testing over a six-week period and preparation of an individualized educational plan. Those students who require more intensive remedial help may be assigned to one of two self-contained classrooms. Again, each county is allotted a certain number of "slots" in these classes. Most students, however, receive follow-up services in the regular classroom; these services are supervised by resource teachers who serve as a link between the Center and the schools.

During the first year, all students came for diagnostic services to one central location. This required many of the children from outlying parts of the six-county region to spend a large part of the school day on the bus. It was difficult also for resource teachers to interact directly with both the Center and the schools. Therefore, in 1975-76, a second diagnostic classroom was set up at a school located in the southern part of the region. In addition, two self-contained classrooms for students with more severe learning problems were established--one at the Center and one at the same school which was implementing a diagnostic classroom.

There were 244 students directly served by the Center at the two locations in 1975-76. Most of these students were between the ages of 6 and 12; a small number who were ages 13 through 18 were served by resource teachers at the request of local districts.

Funding/Staffing

Funding for the Center in 1975-76 included $80,000 in Title VI-G monies, $14,054 from the state, and $5,073 from local districts, plus $35,562 in carry-over funds from 1974-75. Total budget was $134,689.

The Center staff consisted of 15 full-time persons, plus the seven resource teachers who worked within the local districts. Center personnel included the Project Director, one speech pathologist, one visiting teacher, one educational diagnostician, one school psychologist, two diagnostic teachers, two teachers of self-contained classes, four instructional aides, and two persons who handled secretarial/bookkeeping duties.

Federal funds were used primarily for salaries for seven of the professional positions, the two secretaries, and two instructional aides as well as for travel and supplies.

State and local funds supported the educational diagnostician and speech pathologist. The State Department of Education also provided excess cost reimbursement and in-kind support, primarily the services of a consultant from the state who provided ongoing technical assistance to the project. The state also paid for a slide/tape presentation and brochure about the Center and all expenses for the staff to give four workshops on learning disabilities (LD) at other locations in the state.

A board consisting of superintendents from the six counties served by the CSDC acted as a supervisory body to the Project Director. The local districts also provided all facilities and maintenance for the Center, bus transportation to bring students to diagnostic and self-contained classrooms, and medical examinations for students when needed. Local funds paid the salaries of the seven resource teachers and their instructional aides. Local districts also made available the services of three psychologists, three speech/language therapists, and six visiting teachers who served as liaisons between home and school.

The Advisory Committee of this CSDC is composed of representatives of a number of social and health service organizations in the area. These include county home extension service, a mental health department, a regional health department, a juvenile court, a probation and parole office, and a social service agency. The Committee thus served as a network of supportive services which were made available to students as needed.

The curriculum library of a local university provided diagnostic materials for teachers at the Center; a second university provided in-service credit for a television course on learning disabilities. The Center also used the services of volunteers from a local senior citizens group who provided parties and of students from a nearby private school who painted the classrooms.

Goals, Objectives, and Related Activities

The Center had eight stated objectives in 1975-76, encompassing the full range of services outlined for demonstration projects in the federal guidelines for the learning disabilities program. Prime emphasis, however, was on the delivery of diagnostic and instructional services to learning disabled students, on staff development, and on increased awareness of the nature of LD and its remediation on the part of regular classroom teachers and other school personnel. Despite the attendant problems of creating new services where none had existed before, the Center appears to have met its objectives over the past two years.

The project was delayed in becoming fully operational during the first year because of the need to recruit a professionally trained staff to serve as a diagnostic team. Also, none of the resource teachers from the seven districts were certified learning disabilities teachers. The first two months of the project were spent mainly in training of these teachers, in ordering equipment and materials, and in setting up the procedural plans. Despite a slow start, the Center's multidisciplinary team tested 191 students during 1974-75, and prepared detailed reports and recommendations for each student. There were 128 students who received diagnostic prescriptive services from the resource teachers in the school systems; many of these were the same students tested at the Center.

There was a change in project directors in the summer of 1975 at the same time that the project was being redesigned by the State Department of Special Education. Essentially, the Center began implementing a new program in the fall of 1975, although many of the staff members were the same ones as during the first year.

During 1975-76, a detailed and in-depth diagnostic process in which students were observed and tested by a multidisciplinary team over a period of six weeks was developed. This occurred in the diagnostic classroom to which students were bused every day for the six-week period. Toward the end of the cycle, the team (in collaboration with the home school teacher and the resource teacher) prepared an individualized instructional plan for the student. Implementation of the plan was under the continued guidance of the resource teacher, acting as liaison between the diagnostic team and home teacher. Five diagnostic cycles were complete in 1975-76; 67 students received these in-depth services. Plans for 1976-77 are to shorten the time that students are in the diagnostic classroom, to return the student to the home school in the third week, and to provide continuous on-site evaluation and revision of the instructional plan over a six-week period.

During the year, 20 students received individualized, multisensory instruction in the two self-contained classrooms (ten students in each class). Age range for these students was 8 to 13; grade levels ranged from

September to April, depending on when they were referred by the home district. The goal for 1976-77 is to complete all referrals at the beginning of the year.

Resource services were provided to 235 students, ages 6 to 18, at their home schools. Most of the students received remedial help outside the regular classroom from the resource teachers; some were served by classroom teachers in consultation with resource teachers.

The project objective related to creating awareness of LD and its remediation among classroom teachers and other school personnel has been met in a variety of ways. During the first year, two courses sponsored by the state university were made available at the Center for credit. A course on characteristics of learning disabilities was taken by 61 teachers and 2 adminstrators; 16 teachers and 2 adminstrators took a course on methods and materials for teaching the LD child. During the second year, resource teachers worked on a one-to-one basis with regular classroom teachers; regular teachers were also included in conferences with the diagnostic team during which instructional plans were formulated. Inservice training sessions also have been held each year for teachers, special education coordinators, psychologists, and principals from schools in the seven participating districts. In addition, the Project Director has bimonthly meetings with the Advisory Council and with the board composed of the district superintendents; informal contacts with members of these groups are even more frequent. According to the Project Director, one measure of the attainment of this objective is the amount of time which the superintendents now spend on matters related to learning disabilities and special education in general.

In the area of staff development, all seven of the resource teachers and their aides have received weekly and monthly inservice training from the specialists at the Center. There is also informal interaction between the Center and these teachers throughout the year.

Services to Students

The Center adheres to the following state definition of learning disabilities:

> A learning disabled child is usually within or above the average range of intelligence. The child shows a disorder in one or more of the psychological processes necessary for learning. These processes are written and/or oral language development; motor development; visual and/or auditory processing skills; inter-sensory, perceptual integration skills. A disorder in one of these processes can result in difficulty in developing or using academic and perhaps social skills to such an extent that the child's manner of learning differs markedly from the norm of the group, requiring special educational services.

In addition to these criteria, the Center guidelines state that (a) LD children have a different learning style from the majority of children; (b) no two of these children will show exactly the same skill-ability profile; and (c) they can be identified in part by the evident gap between their assessed abilities and their classroom (or test) performance.

Students enter the Center program only after an extensive referral, screening, and testing process has occurred within the home district. This process involves the following steps:

1. Most referrals originate with the classroom teacher, who submits a request for evaluation to the school principal.
2. The principal submits the request, along with relevant educational data about the child, to the local coordinator of special education.
3. The visiting teacher (usually a trained social worker) visits the home to explain the referral and get permission for evaluative testing. The visiting teacher obtains a social history on the student at this time; parents are asked to complete a social behavior checklist and medical history.
4. The visiting teacher reports back to the special education coordinator who may (a) refer the student to the school psychologist for testing or (b) decide that there is enough information to refer the student to the placement committee. Full evaluation at the local school level must conform to certain state requirements. Before a student can be referred for special services, the following types of information must be collected:

- Social history
- Educational history
- Medical data including (as needed) results of neurological, vision, and hearing tests
- Scores on tests of intellectual functioning, achievement, and (as needed) perception

5. A county placement committee meets to consider information about the student. These committees usually consist of the coordinator of special education, the school psychologist, the visiting teacher, and sometimes the principal and the school nurse.

6. The placement committee makes its recommendation to parents through the visiting teacher. These recommendations may include placement in the self-contained or diagnostic classroom or the resource programs. No placement can be made without parent permission.

   Students are usually placed in the self-contained classes on the basis of age (more than 10 years old) and the severity of their problem, as determined by academic performance and social behavior. Many of these students first go through the diagnostic cycle.

Students referred to the diagnostic center represent the more puzzling cases, from an educational point of view, for whom more information is needed. After the placement has been made, the diagnostic teacher meets with the student's regular teacher to determine what the student is doing in the classroom and to decide what resources are available in that setting.

While the student is in the diagnostic cycle, a series of individualized tests are administered to identify specific deficits and to find materials and methods that will work with that student. Assessment includes psychological, projective, processing, and academic skills tests. Speech and language evaluations are also completed. In addition, there is diagnostic teaching to try out the methods and materials that will be written into the educational plan.

At the end of the cycle, the placement committee again meets to consider whether the student should return to the regular classroom program, be assigned to a resource program, or enter the self-contained classroom.

If assignment is to the regular class or resource program, the diagnostic teacher meets with the regular and resource teachers to explain the educational plan.

Educational plans are extremely detailed and written in terms that the classroom teacher can readily understand and use. They treat the areas of language, arithmetic, motor development, behavior perception, and family concerns (a home educational plan is prepared for parents). Exhibit A on the following page shows part of a plan for one student. Each student's progress is evaluated on an individual basis, and appropriate changes are made in the plan when warranted.

Overall evaluation of the project has been evaluative information, including that which would meet the criteria for validation by the USOE Joint Dissemination Review Panel.

Other CSDC Activities

The Project Director has spent much of her time in disseminating information about the project through formal talks to PTAs and other civic organizations; meetings with school superintendents, principals, Advisory Council members, and placement committees; and attendance at state and national conferences. The Center has prepared a brochure and slide tape presentation as well as a radio spot on services available to LD children. They have also published a quarterly newsletter which is mailed to parents, civic groups, physicians, etc. Reprints of journal articles on learning diabilities have been provided also to parents. One of the staff teachers has been instrumental in the establishment of a local chapter of the Association for Children with Learning Disabilities. In 1976-77, plans are to hold a series of workshops for parents, adminstrators, and volunteers to be conducted by outstanding consultants in the field of learning disabilities. Presentations are also planned for teachers at each of the participating schools.

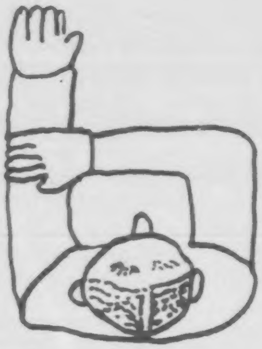
Replication was considered to be a premature goal for the Center, after only two years of operation. However, it was estimated by the Project Director and by the State Director of Special Education that six areas in the state will have adopted the regional model by 1978-79.

EXHIBIT A

Suggestions for Teaching ____

VISUAL

The suggestions listed below are designed to strengthen ___________'s visual weaknesses. All learning tasks which involve visual skills should be reinforced with auditory and kinesthetic cues. _____________ would benefit by doing at least one of these exercises every day.

Problems/Strengths	Possible Approaches	Suggested Materials
1. To help with b/d confusion:	1a. Show child that he can make his arms into b. Have him use this as reference when he isn't sure if a letter is b or d.	
	1b. Have child trace the letter b in the air, in sand, on a carpet, etc., saying the letter each time he makes it. (Begin by teaching only the letter b; otherwise he will continue to confuse b and d.)	
	1c. Give child list of words beginning with b and d. Have him trace all the words beginning with b.	
2. To help with reversals:	2a. Emphasize left-right directionality in everything (counting, naming, etc.).	
	2b. Have child trace, read, copy, then write from memory letters commonly reversed like p and q, n and u, or formed backwards like z and e.	
	2c. Have manipulative materials for him to use daily to make numbers, letters, and simple words involving confused letters.	Clay, beans to glue on cardboard, parts of letters cut out of tactile material (see Reading le.), large felt board and felt letters, drawing in fingerpaint.

There is considerable involvement of parents with the Center through staff contacts by phone, letter, or personal visits. Parents of students in the diagnostic cycles receive progress reports in the form of short handwritten letters. Visiting teachers are responsible for delivering these reports and home plans and for explaining the decisions of the placement committee to the parents. Evening meetings and open houses have been scheduled for parents at the Center, although attendance has been limited because of the long distances between most of the homes and the Center. Many of the dissemination activities mentioned earlier are targeted at parents.

Eight parents were interviewed during the site visit (one parent had two children in the student sample). Of these, seven mentioned conferences with resource and visiting teachers at which the project had been explained, and five talked of home activities that had been recommended for helping their children. When asked about changes they had observed in their children, six of the parents mentioned improved behavior; five mentioned improvement in grades or academic skills; and six mentioned improved attitudes toward school.

Discussion

In two years' time, this CSDC has created a program of services to learning disabled students at three levels of intervention in a region where no LD services had existed. During this time a multidisciplinary staff has been assembled, training has been provided to teachers and administrators over a six-county area, and a considerable number of students have been directly served. In addition, according to the Project Director learning disabilities has become one of the top priorities within the seven participating districts. As one indication of local support, it is projected that the proportion of federal funding required to support the project will decrease from a high of 83.5% of the total budget in 1974-75 to 11% in the 1978-79 school year.

In meeting its goals, the Center has faced a number of obstacles: changes in the program model; a change of project directors; the difficulties in recruiting qualified professional staff in a rural area with little job security, low salaries, inadequate housing, and limited resources for professional development; and problems of coordinating school schedules and bus transportation for students from school districts spread across six counties. That the objectives were met appears to be attributable to four key factors:

- Continuing support and guidance from the State Department of Special Education
- The interest, support, and direct involvement of the superintendents from the participating districts
- The organizational skills of the 1975-76 Project Director and her close attention to communication and coordination with other local agencies
- The dedication of the staff members, many of whom spent their own time in preparing educational plans, contacting parents, and disseminating information about the project

PROJECT H

Overview

This CSDC is located on the campus of a large southern university, within a small town setting. During the period from 1974 to 1976, this Center had two principal purposes. The first was to train undergraduate and graduate students to diagnose and instruct learning disabled children. Integral to this was the Center's second purpose, to serve directly a limited number of learning disabled students and their parents. When the model was conceptualized, the need for a program to train learning disabilities teachers and diagnosticians in this rural southern state was critical. This is still the case. Since 1966, when no services were available for learning disabled students, the number of classrooms has grown to over 200. Despite this growth, only about 9% of the teachers needed to serve the estimated 19,500 students eligible for learning disabilities services have been trained. (The number of eligible students is derived from the assumption that 2% of the state's school population is learning disabled.)

In order to diffuse learning disabilities services throughout the state, the CSDC was founded on the philosophy that, for the learning disabled, the "burden of change must rest with teacher training institutions" (according to the original proposal). The Center was conceived and created by its two Directors. In 1971, when they first came to the university, they realized the need for a "hands on" clinical facility. At that time the university offered only student teaching; within the 22-county area surrounding it, there were no diagnostic services and only two learning disabilities classes. The Directors formulated the idea for the project and then applied for and received Title VI-G funds. The project began in July of 1974.

To accomplish the project's purposes the CSDC offered two kinds of practicums: (1) the diagnostic/prescriptive program (d-p) and (2) the diagnostic/prescriptive/remedial program (d-p-r). In the d-p practicum, a five- to eight-member team of graduate students from the fields of elementary education, special education, educational psychology, clinical psychology, and guidance conducted an intensive two-day testing of a child; upon completion of the testing, team members made diagnoses and wrote individualized recommendations to the home and the school. In the d-p-r practicum (offered mainly during the university's summer sessions), a teacher-trainee provided individualized remediation to one to four students on a one-to-one or small-group basis; at the end of the remediation, the trainee prepared a case summary that described the remediation and made further recommendations to the home and the school. Both practicums were graduate level courses. The course sequence developed for the trainee lead to teacher certification in the state, thereby providing local school systems with teacher personnel qualified in learning disabilities. To date, 179 graduate students have received teacher training. Students from 18 counties have been served by the project; many were from the six counties immediately surrounding the Center.

In addition to teacher training, the Director of this CSDC devoted time to the promotion of services for learning disabled children throughout the state. For example, he assisted districts in setting up classes for learning disabled students. He also was instrumental in helping local parents found a chapter of the ACLD and continues to counsel them on their rights as parents of learning disabled children.

Funding/Staff

The CSDC's proposed total budget for fiscal year 1976 was $108,512: $69,142 was funded by Title VI-G and $39,370 was funded by the university (funds coming indirectly from the state). The largest CSDC expenditure in the 1976 budget was staff salaries ($29,307 subsidized by the federal government, $29,846 by the university); the second largest was specialized equipment ($49,175 from federal and $4,000 from university funds). Both federal and university funds helped pay for physical facilities and employee benefits. Expenses that were funded solely by the federal government included travel, consultants, evaluation, dissemination, communications, and specialized materials.

The Director did not apply for third-year (1976-77) Title VI-G funding. He was told that in order to be funded for another year, the CSDC would need to develop a new set of objectives and shift its focus to secondary-level students. He felt that the current model required another year for refinement and decided to pursue that goal, rather than start a new project.

The Center also had the backing of the public school system. The CSDC helped the system find learning disabilities teachers and offered the summer remedial program to local students. It also provided consulting services to local schools and to districts in surrounding communities.

The Center received support from a number of local organizations, in particular the campus chapter of an educational honor society and the local ACLD chapter. It also made use of local delivery systems, such as the counseling services of a regional mental health complex.

The Director and the Assistant Director were the key personnel on the CSDC staff. They were assisted by a secretary (who did many varied tasks) and by four doctoral assistants. The Directors were supported by both Title VI-G funds and university funds. The secretary and the four graduate assistants were supported solely by Title VI-G funds.

The Directors are both assistant professors in the College of Education at the university. The Director is Assistant Professor of Educational Psychology/Special Education; his area of expertise is elementary education with emphasis in reading and learning disabilities. The Assistant Director is Assistant Professor of Elementary and Secondary Education; her area of expertise is elementary education with emphasis in reading.

Objectives and Related Activities

The CSDC Director cited four major objectives of the project:

- To graduate highly trained professional personnel with extensive practicum experiences who will implement diagnostic, prescriptive, and remedial techniques in school systems, benefiting a broad base of children with learning disabilities
- To provide d-p-r services to children in this geographical area
- To provide and conduct educational programs for parents, school personnel, and other professionals concerned with learning disabled children

- To develop a technical manual to assist in the replication of the model center, regionally and nationally

The major thrust of the project was the training of professional personnel to work with learning disabled children. The CSDC became operational in January 1975; in the first six months of operation, 61 graduate students received supervised training. In the Center's two years of operation, a total of 179 graduate students have received training. The impact of trained professionals on state services was augmented by the large number of university students who utilized the facility as part of their course work. Between January 1975 and March 1976, 1,347 students took classes at the Center. Although these students did not have supervised training, they were exposed to the diagnosis and remediation of learning disabilities. At the least, these students developed an awareness of learning disabilities; at the most, they acquired a knowledge of certain diagnostic techniques and remedial processes.

The second objective, "to provide d-p-r services to children in the geographical area," has also been met, according to the Project Director. From January 1975 to August 1976, 112 children were served at the Center, the maximum number that the present staff and facilities can accommodate. The CSDC prepared a detailed case study on each child. However, there was no general tabulation of pretest and posttest scores for these children. There was also little documentation of follow-up visits to the schools.

In addressing the third objective (providing educational programs for parents, school personnel, and other professionals), the CSDC staff conducted many dissemination and public relations activities both locally and statewide: development of a brochure about the CSDC and a handbook for parents, establishment of a local ACLD chapter, sponsorship of the state ACLD conference, contact with school personnel in a 22-county region, consultation without charge, and training in classroom management and diagnostic or remedial procedures to local teachers. From January 1975 to March 1976, 324 professional personnel and 105 parents visited the CSDC; as with other public relations activities, these visits introduced state residents to the CSDC and to diagnostic/prescriptive/remedial procedures.

At this time it is difficult to evaluate this CSDC's replication efforts (the fourth objective), as the technical manual has not been circulated. Although two inquiries regarding replication have been received (one from within the state, the other from another state), there is little support in the state government for the duplication of a teacher training program because of the cost.

Services to Students

In its one and a half years of operation, the Center served a total of 112 students, including students enrolled in the 1976 summer program. Seventy-four of these students were served in the d-p-r program. The remaining 38 students received diagnosis and prescription (d-p). These students ranged in age from 5 to 18, with priority given to students aged 5 through 12.

This Center defined learning disabled children as those who have intelligence test scores within the average or above-average range and who have a significant discrepancy between capacity to learn and actual performance level. This definition excluded children whose primary handicap falls into these areas: physical disability, emotional disturbance, mental retardation, and environmental deprivation.

The part of the project which put primary importance on remediation is called d-p-r. During the regular academic year, the Center provided these services to a limited number of children and during the summer to about 40 children. In the 1976 summer program, about 12 teacher-trainees worked with small groups of children in 1 1/2-hour sessions; each trainee was responsible for two to six children. Remedial sessions were conducted Tuesday through Friday. Mondays were reserved for planning, going over videotapes with supervisors, and meeting with parents.

This d-p-r practicum provided the kinds of realistic experiences that the teacher-trainee will encounter in the schools. The object of the practicum was to develop good diagnostic/prescriptive skills in the trainees and to teach them to manage reinforcing experiences. In the course of the practicum, trainees acquired the following skills: task analysis, skills analysis, setting long-term and short-term objectives, developing instructional materials, and writing remedial recommendations (case summaries).

Each child's case was handled through a case coordinator, the professional person who referred the child to the Center (e.g., a learning disabilities teacher, a learning disabilities coordinator, a principal, a regular classroom teacher, a doctor). Three referral forms were submitted for each child: the school's referral contained data such as school records, test records; the parents' referral provided information on family history, parents' attitude toward child, developmental record, etc.; and the teacher's referral (a brief form) described the area of disability, the level of instruction, etc.

The Director and the Assistant Director made the screening decision, favoring students in grades two through six on the basis of need and severity of problem(s). Priority was also given to students who attended the previous summer's program, students who had been diagnosed in the d-p component, and students whose referral forms had been completed. Whether the school could continue the remediation (not whether the school has a learning disabilities program) is also an important factor in screening.

Students in the d-p-r remedial program did not receive a formal diagnosis. Instead the teacher-trainee looked at the referral records and observed the child; out of this analysis evolved the diagnostic teaching (remedial tutoring) plan. The teaching was action oriented and task oriented. Under the supervision of the Directors and graduate assistants, the teacher-trainee planned a series of short reinforcing experiences for each child. The children were encouraged to work independently on task and to raise their hands to get the teacher's attention. In a sample 1 1/2 hour session that was observed, a teacher-trainee engaged two children in the following activities: reading in a Hoffman reader, doing word recognition, solving math problems, telling a child-written story, and cutting and pasting.

The trainee moved from diagnostic teaching into teaching patterned on long-range behavioral goals. Student progress was evaluated daily, and objectives were modified to correspond with progress. At the end of the practicum, the teacher-trainee developed a detailed case summary of instructional activities and recommended programming for each of his/her students. Copies of the case summary were sent to the case coordinator who was responsible for distributing a copy to the parents and a copy to the school. The Center staff did informal follow-up on their own time, and as often as possible they took along the trainees to the school site. If there was an ensuing problem, the staff conferred with the school and/or parents.

The other part of the project was the diagnostic/prescriptive practicum. Children suspected of having learning disabilities were referred to this program for two days of diagnosis. Since January 1975, a total of 38 students have been diagnosed. The goal of the diagnostic practicum was to train graduate students to use a wide variety of diagnostic instruments and to tailor their diagnoses and recommendations to the individual needs of the child. Prerequisites for taking the diagnostic/prescriptive practicum were an introductory course in learning disabilities, a methods course in learning disabilities, and at least one reading course; the Director also recommended a course in IQ testing and a course in administering ITPAs.

Again, the Director and the Assistant Director made the screening decision for entrance to the d-p program. The following factors operated to varying degrees in this decision: first come, first served; the ease of coordination with the school; and the potential interest of the problem to trainees studying diagnosis.

For the intensive diagnosis, each child was seen by a five- to eight-member team, composed of graduate students from Elementary Education, Special Education, Educational Psychology, Clinical Psychology, and Guidance. One of these graduate students was assigned responsibility for the child. He or she conducted the parent interview (which was videotaped with parental permission) to obtain information about the child's physical, social, and emotional environment.

Under close supervision from the Director and graduate supervisors, the graduate students then conducted a thorough two-day diagnosis of the child. Tests included hearing and eye screening tests and a battery of specialized skills tests preselected by the Director on the basis of the child's needs. In about 20% of the diagnostic cases, professional resource people (e.g., pediatrician, speech and hearing specialist, vision specialist) were called in for consultation.

After the testing, each graduate student had two days to score and interpret the test(s) he/she had administered, to write up results and interpretations, and to distribute these diagnoses to the rest of the team. Then the practicum class met to discuss these findings. Next, a case summary of the diagnoses and recommendations was prepared for the home and the school. The CSDC staff conducted a follow-up study approximately six months after the diagnosis.

Follow-up testing and school visits were not a major concern of this Center. The staff perceived tests and follow-up to be the responsibility of the school, both because the CSDC did not have sufficient funds and personnel for these services and because such services were not the major focus of a teacher training program. The success of the project, therefore, was not gauged primarily by student pretest and posttest scores, but more by feedback from the school, the parents, and the teacher-trainees.

Another measure of the success of the two CSDC programs was reflected in the number of children who wish entry to the programs but cannot be accommodated. Over 50 students were on a waiting list for the d-p program; 20 students who applied for last summer's remedial program were not accepted. The Center purposefully does not advertise either of the programs--if it did, the directors feel they would be swamped with applicants. This situation indicates the need for learning disabilities programs in the state and also the quality of student services offered by the Center.

Other CSDC Activities

Dissemination of information to parents, the key target group, was seen as a major mission of the CSDC. By making presentations at local parent groups (such as PTA, Kiwanis, etc.), the CSDC staff provided information about learning disabilities and special education, explained the status of learning disabilities laws, and suggested how parents could help local schools to develop learning disabilities programs. For the second most important target group, educators, the significant means of communication was the CSDC teacher training programs. Information important to educators included teacher certification requirements, methods of developing local special education programs, and specific ways of helping the learning disabled child. The directors made use of existing channels of communication: university media, professional meetings, mass media, professional journals and publications, and mailing lists of school and medical professionals. They also developed their own channels: a pamphlet, a handbook, presentations, CSDC-sponsored meetings, and personal contacts.

The CSDC developed a technical manual to assist other universities in replicating the CSDC model. It is the responsibility of the replication site to make contact with the CSDC and to adapt the model to its own needs. Beyond writing the manual, the CSDC would provide direct technical assistance in setting up the program; special arrangements would have to be made for further assistance. The technical manual was to be printed late in the summer of 1976, and two potential replication sites had made contact with the Center.

Initial communication between the CSDC and the parents of the children was made through the case coordinator, and parents of children in the d-p program later talked about the program with the Director and were interviewed by a clinician. Parents from both programs were to receive a copy of the case summary. Many of the parents interviewed for this study said they would have liked more direct contact with the CSDC: more initial discussion and explanation of the child's problem, progress reports beyond the case summary, some discussion with the teacher-trainee who is going to work with the child, and some follow-up testing. At the same time, these parents were uniformly enthusiastic about the gains made by their children. Many also commented on the CSDC role in furthering the cause of the learning disabled in this community.

The CSDC Advisory Council had 20 members who represented the State Department of Education, administrators and teachers at the university, local medical specialists, and concerned parents. Initially, Advisory Council members made considerable input into the development of the project. Lately their contribution was expressed more as moral support and as interest in the progress of the CSDC and/or in the treatment of a specific child.

Discussion

This model of a d-p-r Center for training preservice and inservice professional personnel was set up to have a "multiplier effect" in the state and thereby to bridge the learning disabilities teacher gap in the state. The CSDC trained a sufficient number of graduate students to have some effect on the state, even with the high attrition of trained teachers to other states where they usually can get more pay and where they can teach in nonrural communities.

The Director and the Assistant Director specified some future directions that they wish the Center to take:

- Contract with counties that have no learning disabilities program. For example, bring in teachers from an influential county and train them in a nine-week summer program (give graduate credit for the training).
- Hire a d-p-r teacher who would monitor more closely the children in local schools and who would provide adequate follow-up services. This teacher could also coordinate the CSDC program in a district that does not have a learning disabilities program.
- Develop an advanced diagnostic team to deliver diagnosis and evaluation services.
- Extend space at the CSDC (into a trailer) to accommodate more students and more children.

Any one of these improvements is in large part dependent on the level of funding received from the university.

PROJECT I

Overview

This CSDC is located in a school district of a predominantly rural/small-town eastern state. The CSDC serves a school district made up of five small towns with a total of four elementary schools and one middle school. One of the five towns is the original site and the other four are replications. The student population served is in kindergarten through grade 8 and is almost 100% Caucasian.

Approximately seven years ago, the state university and the State Department of Education, Division of Special Education, devised a ten-year educational plan that became law in 1973. It coordinates the resources and capabilities of the State Department of Education, the state university, the LEAs, and the local communities in legislating, providing funds, training personnel, and implementing a comprehensive education program. This law defines the process for training teachers, paraprofessionals, and parents within their home districts to work with skill-deficit students, as well as the procedure for identifying and teaching such students within the mainstream.

As the district's first step in fulfilling the state mandate, the teacher-training/mainstreaming program was started in one elementary school in 1970-71. Title VI-G funds were first administered in 1974-75 to aid in the district-wide replication of the original state model, program dissemination, and the start of an early education program for mildly handicapped preschoolers. The early education component is also part of the state plan. It is designed to provide home teaching for three- and four-year-olds whose lack of skills places them in the bottom 5% of the district's children as measured by district-wide screening.

The rural/small town nature of most of the state's 37 supervisory school districts necessitates a model which can provide easily accessible training to teachers, paraprofessionals, and parents alike, who will then use a teaching and evaluation system which is easily understood and instituted. The implementation of this model and an accelerated rate of student growth toward the minimal skill objectives for their age level (as established by a team of educators in each district) are the major overall goals of the CSDC.

The program is a teacher/paraprofessional training model. Everyone is trained in an "objective-based measurement system used to determine eligibility for and effectiveness of special education services." A similar objective-based measurement approach is used in training and evaluating the teachers and paraprofessionals. The training model and teaching system combined allow for the mainstreaming of the majority of the skill-deficit students. Small-group or one-to-one instruction is provided by paraprofessionals, aides, or specialists when needed. The CSDC's program is not unlike programs sponsored by other districts in the state. The only difference is the CSDC's dissemination component, the presence of a communications coordinator on the staff, and the fact that the State Department's Division of Special Education uses the CSDC at times as an exemplary model for districts in the state just beginning to implement the same type of program.

Funding/Staffing

The project has a large staff. It is directed part time by the school district's assistant superintendent. However, the day-to-day administration of the school program is overseen by the codirectors of special education. The early education component also has a chairperson. These three people and two others in the district are consulting teachers. A consulting teacher (CT) is the professional special educator who has received a master's degree from the state university and is thus considered skilled in proving "teaching by objectives" training to teachers and paraprofessionals. Working under the direction of the four school-based CTs are eight paraprofessional teacher aides. Under the direction of the early education chairperson are four paraprofessional home teachers. Also on the early education staff, but not funded by Title VI-G, are two speech pathologists and one reading teacher. There is also a full-time communications coordinator and administrative assistant on the staff. District classroom teachers, building principals, speech therapists, reading teachers, and other specialists are closely associated with the project but not funded by it.

The budget breakdown for the 1975-76 school year is as follows: Title VI-G funds of $99,800 provide 50% of the total budget, including salaries of one communications coordinator, eight school-based paraprofessional aides, four paraprofessional home teachers, one administrative assistant, and one technical assistant; communications operating funds (dissemination); teaching supplies, office supplies, transportation, consultants, and third-party evaluation; and inservice funds (teacher and paraprofessional training). State funds of about $33,000 (16 2/3% of the total budget) provide 75% of each of the five CTs' salaries. State/Title I funds of about $33,000 provide 16 2/3% of the total budget and are divided as follows: Part C provides an additional paraprofessional; Part A provides for speech and language assistance. LEA funds of $33,000 provide 16 2/3% of the total budget, including 25% of each CT's salary (by state law); the Project Director's salary; and facilities, heat, lights, etc. The total budget is approximately $200,000.

The Project Director noted that the Title VI-G funds are viewed only as seed monies. The core staff and project is funded with state or local funds, thus preventing a collapse of the project should Title VI-G be discontinued. The Project Director also noted the importance of early funding notification from BEH as responsible program planning and implementation at the local level depends on this.

Ongoing technical assistance and consultative support is provided by the Department of Special Education at the state university, the State Division of Special Education, and the LEA. Local service agencies and organizations have been helpful in supplying specialized assistance when particular needs arise.

Goals, Objectives, and Related Activities

Two kinds of district-wide goals and objectives are written yearly by CSDC staff in conjunction with the building principals, personnel at each school, and/or with other people directly involved with the accomplishment of the objectives. One set of goals concerns project direction and management in the areas of replication and dissemination, including objectives for the CT Program at each school, the Early Education Program, the communications coordinator, the Advisory Panel, and the project secretary. All of the objectives are very specific and take on the nature of job descriptions and management timelines.

The second set of goals are the "minimal objectives" which designate the specific and essential skills which students should have acquired at each age level. Teams made up of the building principals and selected teachers and specialists of each school have been responsible for first outlining and then yearly clarifying the minimal objectives.

All of the CSDC's goals reflect the overall objective of replicating district-wide the teacher/paraprofessional training model in order to better facilitate the essential skills acquisition of students who are below grade level in skill achievement.

In order to accomplish the goal of full. district-wide replication, the CSDC provides a thoroughly organized training program based on the state's special education training process which includes the following:

- Two-year master's degree in special education provided by the state university (or passing of a state qualifying exam) for all certified consulting teachers
- Paid two-week preservice training for paraprofessional home teachers in early education with concentration in screening procedures, task analysis, lesson planning and implementation, and available teaching resources
- Five university-sponsored courses a year, taught by CTs to district teachers, all paraprofessionals, and other personnel in the home district. There are two courses in individualized instruction, one in measurement, one in learning theory, and one in the history and future trends of special education. Participants receive credit towards a degree or recertification.
- Production of materials that are useful in the classroom by all course participants as a criterion of successful course completion
- Ongoing weekly supervision of paraprofessionals by CTs
- Competency-based evaluation of course participants, as well as evaluation of staff based on occurrence and extent of students' accelerated growth rate

In the two years of district replication, the CTs have trained 97 or approximately 20% of the district's elementary classroom teachers and 30 paraprofessionals in the data-based/minimal-objectives measurement teaching model.

All but two out of approximately 125 project objectives for the 1975-76 school year were met on schedule. Objectives ranged from outlining the yearly tasks of the Advisory Panel to specifying the content of courses offered by the CTs to defining the extent to which guidance counselors ought to interact with CTs regarding particular students.

According to a codirector of special education, 15% of the district's kindergarten through grade 8 students have been identified as having reading and/or language skill deficits. In the past two years, the bottom 8% of these students have been provided with remedial services. The staff, however, is aware that many students with weak math skills have not been served. It is a CSDC objective for the 1976-77 school year to serve the bottom 8% of the math-deficit students in kindergarten through grade 8.

It was also noted by the staff that, although only 189 students are on record as having received direct services as a result of the CT program, the majority of the district's students have most likely benefited as their classroom teachers are enrolled in the CT-taught university courses and are thus receiving training in mainstreaming and individualizing learning programs.

At the end of each school year, the CSDC calculates the average of the accelerated growth rates of those students served in the district. This is also done by all the other districts in the state with CT programs. Thus the district can compare its average to a state average. Table 1 shows where this CSDC stood in relation to other similar programs in the state for the school years 1974-75 and 1975-76 and the increase of the average within the district over the two years.

TABLE 1

Accelerated Growth Rates
for One School Year

School Year	CSDC School District Average	State Average
1974-75	1.6	1.6 yrs.
1975-76	2.1	not available

Services to Students

According to the state law, mildly handicapped students are not labeled as such, nor are they provided services based on that label. Instead, the law requires direct task and behavioral analyses to be done in the classroom on each student who has not reached the minimal skill objectives for his age level (established by his district) and an educational plan to be devised which will bring the student's measurable skills up to that level. The law also states that remediation will generally be carried out in the classroom by the classroom teacher. In some circumstances, students will be taught one-to-one or in small groups by a CT or his/her aide.

By state law those students achieving in the bottom 8% of the school district population are eligible for CT services. In the CSDC's district, there were 2,580 elementary school-aged students in 1975-76. In the same year, 189 students were referred and provided with individualized learning programs. This CSDC's teaching/learning focus is on the modification of exterior and measurable behaviors and/or skills rather than on assumed processing deficits. Thus standardized diagnostic testing is not part of their assessment. Instead, the following referral, assessment, and teaching process is followed:

- All students are referred by classroom teachers to CTs for evaluation. Referrals must also be signed by the principal.

- After consultation with the CT, the classroom teacher takes baseline measurements of the student's deficit skills using district-designed pretests for each skill area. The teacher then completes a reinforcement inventory for the student.

- The classroom teacher communicates with parents about baseline data and intervention programs and acquires parental permission to work with the child. Any home intervention techniques are also discussed.

- A conference of the CT, the classroom teacher, and other relevant school personnel convenes to recommend classroom and curriculum modifications to enhance the student's educational growth. The plan is devised, covering the teaching/learning procedures, the instructional objectives, and the measurement system.

- Modifications are implemented in the classroom. These may include tutorial work with an instructional aide. Direct daily measures of target behaviors are taken and charted. Reliability checks of behavioral measures are made periodically by the aide.

- An evaluation of procedure is begun at the time of plan implementation. The CT and classroom teacher make any changes that are needed.

- When the student reaches the level of the instructional objectives, measurements are taken occasionally and the reinforcement schedule is gradually decreased. Parents are notified that objectives have been reached.

Most parents of school-aged children who were interviewed noted social and academic gains in their children. Some parents were pleased with the personalized and individualized aspects of the CT mainstreaming program, whereas others thought a more traditional diagnostic-testing/resource-room model would be more desirable.

The state law also requires the district's three- and four-year olds to be screened each year and the bottom 5% to be provided with the services of paraprofessional home teachers to develop fundamental skills. In 1975, the district had 380 children in this age group, and 20 children were provided home services through Title VI-G funds. The early education program is based on the premise that parents can be good teachers, and the special learning opportunities they can provide children have a good chance of eliminating skill deficits before they can become learning problems in school.

The early education program is built on the following process:

- All the district's three- and four-year olds are identified through the school census and screened in the areas of language, speech, pre-reading, motor socialization, and cognitive skills.
- Further evaluation of deficits is done by measuring whether or not the children have mastered basic minimal objectives for their age.
- Objectives for the student's undeveloped skills are written. Skills to be taught are broken down into small, hierarchical steps. Lesson plans for the parent are built around these. All programs are play-oriented and based on family routine.
- The home teacher and perhaps a speech therapist take the plan to the home on a weekly basis. Teaching procedures are explained and modeled; the parent is encouraged to demonstrate an understanding of the materials provided.
- The parent works with the child during the week, using the lesson plan. The home teacher is always available for consultation.
- The home teacher continues to make weekly visits during which she evaluates the student's progress, continues modeling the teaching process with the parent, reworks the educational plan, and/or introduces further skills when appropriate.
- Participating children are screened again in the fall. Placement decisions are made based on the results. For those students entering school, close follow-up and coordination with the early education program is provided.

Parents who were interviewed and involved in the Home Training Program reported marked gains in their children's skills and great satisfaction with the program.

Other CSDC Activities

This CSDC is a replication project. Thus the focus of all of its activities is district-wide replication of the consulting teacher training/teaching model. It is the job of the project communications coordinator to disseminate descriptions about the project and the special training/teaching strategies, as well as materials that have been devised by the Title VI-G staff to fulfill the replication goals. The statewide educational community as well as local parent and citizen groups are prime dissemination targets. The CSDC's own Advisory Panel has been very active in disseminating CSDC information to relevant community groups.

The project hosted approximately 80 visitors from across the nation in 1975-76. They were all given a full day's standard workshop/tour of the district's training/teaching model in action.

Other forms of dissemination included the following:

- A CSDC newsletter three times a year (community-based)
- Advisory Panel newsletter (community-based)
- Two slide shows about the project
- Presentations at professional conferences on the state, regional, and national levels

The state university and State Department of Education also discuss the project in courses and at state meetings. The communications coordinator also coordinates the yearly third-party evaluation of the CSDC. The CTs keep abreast of their profession by belonging to the statewide CTs' Association which offered ten full-day workshops in 1975-76, based on the stated educational needs of the CTs. All of the CSDC's CTs attended these workshops which required them to create products useful in their home schools and prepared them for their five-year CT recertification.

The project has a very active Advisory Panel composed of the following representatives:

Two parents from each of the five towns
Representative of the state university Special Education Department
Representative of the State Department of Education

ACLD representative (parent) from the district
Principal as representative of Executive Council
Teacher representative for the district, designated by the State Educators' Association
Representative from the school district board
Project associate/communications coordinator
Area pediatrician
Special service representative
Representative to State Advisory Council on Mainstreaming

The Advisory Panel meets regularly on a monthly basis and writes project objectives for itself yearly. Because it is such a representative body, the panel is able to provide the CSDC with input regarding the special education needs and attitudes of the community. Monitoring the CSDC's activities and disseminating CSDC information are the panel's two main objectives. The CSDC staff has a close working relationship with Advisory Panel members and is very pleased with the Panel's work thus far. Everyone feels that the quality of dissemination is what is needed but that continued efforts are needed to convince the local citizenry of the worth of mainstreaming and the CT program.

Parents are formally involved in the CSDC in several ways. Not only are there ten parent representatives on the Advisory Panel, but last year there were individualized, home-based parent workshops offered in one town to nine sets of parents and in another town an in-school volunteer program which trained 54 volunteers. In the home-based program, the CT worked with parents to help them better learn to manage and modify specific problem areas in their children's behavior at home. In the other town's program, the parent volunteers underwent training to learn how to administer the lessons of the reading continuum used with reading-deficit students in that school. They worked with students in reading and assisted teachers with the clerical aspects of pretesting and posttesting on all the minimal-objectives tests. In the district's other three schools parents are worked with primarily on a one-to-one basis when students are entered into the project and thereafter whenever there is a need.

Discussions and Remarks

CSDC staff, district administrators, classroom teachers, specialists, and Advisory Panel members all expressed enthusiasm and satisfaction with the minimal skills objectives, mainstreaming, teacher/paraprofessional training model provided by the CSDC. One of the strengths of the project is that each person felt he/she was an integral part of the project. Its other particularly strong aspects include the following:

- The comprehensive link between the State Department of Education, the state university, and the LEA
- The functional, yet flexible teaching model which can be instituted by trained professionals or paraprofessionals
- Strong parent and Advisory Panel participation in the ongoing workings of the project
- A well-conceived and coordinated dissemination component

These aspects all add up to a CSDC which has successfully acomplished the objectives it set out to meet and made a marked improvement in many of its students' rate of skill acquisition.

PROJECT J

Overview

This site is implementing one of three models within a service demonstration center system which serves a large state. This particular Center is located in a middle-class community with a population of 38,000. In 1975-76, the ethnic breakdown of the 70 students served by the Center was 52 Caucasians, 14 Hispanic students, and 4 black students.

Although it reports to the state CSDC system, this Center operates within a public school district. Located in the wing of an elementary school complex, it is comprised of three rooms: a reception area housing a secretary and a professional library, a classroom for replication training and student assessment, and a room for either classes or conferences (staff, parent, administrative).

The project began in June of 1972. The district had shown an interest in assessing learning disabled children, in intervention, and then in implementation in the classroom. These interests corresponded with the components of federal legislation which was passed in the spring of 1972, and so the district decided to apply for a federal grant. Since 1974, the project has been funded primarily by federal contract administered through the state.

The Center's program combines two components which function in an interdependent manner. The first is the assessment of and educational planning for individually referred students; the second is the training of teachers in the Center's assessment and planning procedures. The second component has a major emphasis in the project.

In the context of these components, the Center carries out the following major activities:

1. Makes a three-day assessment of the learning strengths and weaknesses of students referred from within the district and writes educational plans for these students.

2. Conducts one-week training sessions for teachers or educational specialists who want to implement the assessment/planning process in their schools.

3. Provides spaced follow-up visits to (a) the students' regular teachers who are implementing the educational plans and (b) to the educator-trainees who are implementing the process in their schools.

In the past two years the Center has conducted training for 22 school districts (a total of 152 trainees). In addition to the week-long training sessions, staff members make four to six visits to each site per year, and trainees make one to two return visits to the Center.

The week-long training session is the point at which interdependence of the student services and teacher development occurs. Briefly, visiting teacher-trainees are acquainted with the Center procedures and the overall training plan on a Monday. For the next three days they interact directly (one-to-one) with a local student who has been assigned to the Center for services. These three days of interaction include familiarization with the student's needs as revealed by baseline measures, observational assessment of the student using sample learning materials, and the writing of tentative objectives and recommendations for an educational plan. On the fifth day, typically a Friday, a parent-teacher conference is held and, together with the Center's educational specialist, an educational plan is finalized for each student. Presumably, through the arrangement the teachers benefit from the practical tasks of assessing and planning for students in a realistic rather than simulated situation, while students have an opportunity to receive services somewhat sooner than might be the case if only project staff were involved.

Each district sets its own objectives for potential trainees--the Center bases acceptance for training on the workability of these objectives. The district must also sign an agreement to implement the training received by their staff, to evaluate the effectiveness of the implementation in terms of pretest and posttest data on students, and to share the results of this evaluation with the CSDC.

Funding/Staffing

For the 1975-76 school year, federal government support totaled $75,427. The shared costs were approximately 42% from Title VI-G and 58% from Title VI-B. The largest project cost supported by Title VI-G was salaries and employee benefits (budgeted at $28,971). Other budgeted items included books and supplies ($1,297) and travel and conference costs ($2,585). The Title VI-B funds were allocated for salaries and benefits, books and supplies, contracted services, equipment, and indirect costs.

The Center staff includes the following personnel with time commitments as specified: administrator (15%); two resource teachers/educational specialists (both 100%); two aides (one, 100%; the other, 20%); and two secretaries (one, 100%; the other, 50%). Nine classroom teachers (approximately 9% each) are available to the project but are not considered staff. Title VI-G funds support one of the educational specialists, the half-time secretary, and the full-time aide; Title VI-B funds support the remaining personnel.

The key staff members are the two educational specialists. The senior specialist serves as project coordinator, coordinates activities that involve direct services to children or to parents, and responds to outside agencies. The other specialist shares responsibility for teacher training, implements the follow-up program for direct services to children, plans and implements parent contacts and programs, and participates in follow-up visits to out-of-district replication sites.

The Center receives support from both the district, higher education, and interested volunteers. Giving it priority treatment, the district encourages the Center's efforts both within the district and outside the district. The Center also receives the services of consultants from three local institutions of higher education. In addition, a parent group and a service group concerned with the neurologically handicapped provide educational materials and moral support.

Goals, Objectives, and Related Activities

The two major goals of this project are (a) to provide educational assessment and planning to learning disabled students within the district and (b) to encourage replication of the model outside the district. Annually, a state audit team visits the Center. In March of this year the team identified a number of activities that suggested that the two major goals had been met.

Goal 1 pertaining to in-district services was stated as follows: "76 students will receive educational assessment and planning from Center educational specialists. The service will be provided either formally with a completed referral to the Center or informally by giving consultation and support at the teacher's request." As of March 1976, the audit team noted the following activities related to this goal:

1. Fifty-three students had been referred from the district and had received in-depth diagnostic assessments. Prescriptions were written and follow-up consultations were made for these students.*
2. In the district's special education classes, 200 students had been diagnosed by their teachers (education specialists). Prescriptions were written for those students and individual progress was monitored.
3. About 30 more regular classroom students had been referred to the Center's educational specialists for assessment and prescriptions. Students from county programs and private schools also received services from the Center.
4. The students served represented mild to moderate handicaps (learning disabled, educationally handicapped, regular class, special class).
5. Assessments were in-depth, with one to five objectives derived from information contained in completed assessments. Educational plans were written, and intervention techniques were suggested to the referring teacher and the parent.
6. Follow-up data logged by the Center staff demonstrated frequent contacts with referring teacher and parents and a strong attempt to monitor and evaluate pupil progress.

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*By the end of the school year, a total of 70 students had been fully served.

7. PIATs and/or WRATs were administered to all students for pretest data collection; posttest data were collected in the spring. Test data recorded for the 1974-75 school year showed better than one month's growth for each month of instruction.
8. Pretest data on a Learning Behavior Rating Scale were obtained; posttest data were not available in March at the time of the audit. Center analysis of 1974-75 behavior data supported the expectation of improved "school learning behaviors." Teachers and parents interviewed reported positive changes in the students.
9. All parents attended prescriptive conferences at the Center and met the staff. They were aware of diagnostic results and expressed satisfaction with the educational plans. Parents cited support from Center staff as adequate.
10. Center staff and the district educational specialists met once a month. Inservice training was based on input from the specialists; most reported satisfaction with these inservice sessions. In 1975-76, the staff made 47 presentations related to awareness and inservice.

Goal 2 pertaining to replication was stated as follows: "In response to dissemination activities (letters, brochures, conference presentations, etc.), personnel from other districts will request an awareness visit to the Center. After consultation, 50 districts will request preliminary discussions as to the feasibility of their staff's involvement in training. Twenty-five districts responding will enter into written agreements for training and will utilize consultant skills in their home district." The audit team commented on the following activities related to this goal:

1. About 90 districts requested preliminary discussions, exceeding the estimated 50 districts. Samples of feedback from 94 teachers who visited the Center showed positive value of the Center to visitors.
2. During 1975-76, 24 written agreements were made for replication training.
3. A random sampling of districts whose staffs have received training indicates a high degree of assessment and educational planning skills.

Many of the staff continue to use the training packet in their home district. However, there was some concern about emphasis on assessment in comparison to remediation prescriptions.

4. In general, the trainees had developed satisfactory local inservice programs. Some were quite extensive, while others appeared to reach a smaller number of staff members.

5. One replication district has written its own Title VI-G project, using the basic concepts of the demonstration Center training. At lease four others were considered fully replicated. On the whole, costs have not appeared to be a constraining factor in replication.

According to this recent audit the Center has met its goals. It was also the auditor's opinion that both in-district and out-of-district services were carried out in a professional manner. In particular, the replication training was considered very successful, and districts were signing up for training well into 1976-77.

The staff have collected data on student progress, which are published in the state's overall CSDC report. The table on the following page is adapted from the state summary. It compares the base gain rate taken before the intervention and the rate which reflects the student's gain as a result of the intervention. Scores are included for students who are part time in a class and part time in a regular class and for students who are served wholly in a regular class. While the number of cases is small for the various grade levels, it would appear that learning rates are appreciably increased after intervention.

The staff associated with this Center feel confident about the direct student services they are providing. They are enthusiastic about the project and their role in it.

Services to Students

In 1974-75, the first year of contract operation, 84 students from the district's special education classes were referred to and served by the CSDC. In 1975-76, the second year of contract operation, 71 students from

TABLE 1

Gains of Students Served by Center, Adapted from State Data Sheets

		Part day in Regular Class-Part day in LD Group				Full-Time Regular Class			
Grade Level	Test	n	Base Gain Rate[a] $\bar{X}$	Months[b] $\bar{X}$	Gain Rate[c] $\bar{X}$	n	Base Gain Rate $\bar{X}$	Months $\bar{X}$	Gain Rate $\bar{X}$
1-3	Reading Recognition	1	0.6	7.0	2.1	11	1.1	3.7	1.1
	Reading Comprehension	1	0.6	7.0	1.3	3	0.9	4.3	0.7
	Mathematical Concepts	1	1.0	7.0	1.8	9	1.1	4.1	1.8
	Mathematical Computation	1	1.3	7.0	2.3	1	0.6	3.0	2.7
4-6	Reading Recognition	3	0.5	5.7	1.4	11	0.5	3.7	1.4
	Reading Comprehension	3	0.6	5.7	1.2	8	0.6	3.5	2.5
	Mathematical Concepts	3	1.1	5.7	2.1	7	0.7	3.8	2.3
	Mathematical Computation	3	0.9	4.3	2.6	2	0.5	4.0	3.5
7-9	Reading Recognition	2	0.7	8.5	0.9				
	Reading Comprehension	2	0.6	7.0	2.1				
	Mathematical Concepts	2	0.8	8.5	1.7				
	Mathematical Computation	2	0.8	9.0	0.7				
10-12	Reading Recognition					1	0.6	5.0	0.8
	Reading Comprehension								
	Mathematical Concepts					1	1.4	7.0	9.4
	Mathematical Computation					1	0.4	5.0	1.0

[a] Base gain rate $= \frac{\text{Pretest}}{\text{months of instruction since 1st grade entry}}$

[b] Months = months of intervention instruction

[c] Gain rate $= \frac{\text{Post-pre Test}}{\text{months of intervention instruction}}$

various regular classrooms in the district were referred and served. Within the three-day period of diagnosis, each of the students was assessed by a teacher-trainee, who then translated the diagnosis into an individualized educational plan.

As defined by this state education code, learning disabilities mean:

> (1) Specific learning disabilities in the psychological, mental, or physiological process which involve interference in understanding spoken or written language. Such learning disabilities include, but are not limited to, those sometimes referred to as perceptual handicaps, minimal brain dysfunction, dyslexia, dyscalculia, dysgraphia, or communication disorders, except aphasic as defined in Section 3600(g) of this title.
>
> (2) The specific learning disabilities are of such severity that they interfere with the learning of the basic skills expected of pupils of similar age, and evidence is presented that upon amelioration of such disabilities a favorable prognosis may be made for the reduction of the discrepancy between the pupil's ability and level of functioning in the learning skills.
>
> (3) Where the general level of academic functioning is below expectation for the pupil, such delay shall not be attributable to mental retardation for academic learning.
>
> (4) The specific learning disabilities shall be determined by a complete evaluation accompanied by recommendations for the amelioration of the learning disorder that can be carried out within the class or program recommended.

Because of an externally imposed quota (2%), some students who might benefit from learning disability services remain in the regular classroom and are served by the Center and an on-site educational specialist.

Initially, referral of students to the Center was done informally. During the past year referral has been formalized into the process that follows:

1. Referrals come from the regular classroom teacher, who identifies the student who has a learning problem and notifies the school psychologist.
2. The psychologist and the teacher (and often the principal) decide to refer the student to the Center. The decision is based on one of three rationales: the student has been tested and qualifies as

learning disabled; the student has been tested and does not qualify, but the teacher needs classroom support service for the student; or the school psychologist desires objective information about the student's performance.

3. The psychologist fills out a referral form. The form indicates the student's disability in one or more of six areas (speed of functioning, math concepts, behavior, reading skills, language concepts, social skills) and indicates whether a complete psychological workup has been done on the student. Concurrently, the classroom teacher fills out a form with two behavior scales; both ratings are required by the state. No cumulative records are forwarded to the Center nor do the staff see their contents.

Assessment is the heart of the Center program. Two kinds of tests are administered to all students: (a) a basic assessment test measuring competency in performance areas of hearing, writing, saying, reading, copying; and (b) a standardized test, the PIAT and/or the WRAT at all levels, plus the Key Math at the secondary level (which shows the student's abilities compared with children in his/her age group). These tests yield information about the student's academic strengths and weaknesses. The teacher-trainee then reviews the standardized test information, assesses error patterns, and observes the student in order to define or verify his learning style. (The Center identifies three kinds of learning styles: strong visual strength with auditory deficit, strong auditory strength with visual deficit, and visual and auditory deficit.) In addition, the trainee gathers information on the student's speed of functioning and assesses the student's behavior patterns. The trainee may also look at the behavior rating of the regular classroom teacher and take her own baseline data. In addition, she may administer other tests to pinpoint specific deficits or to verify a hypothesized learning style.

The Summary Sheet (the educational plan) is written by the teacher-trainee with consultation from the Center's educational specialist. The objectives and remediation in this plan are derived from evidence gathered in the diagnostic process (primarily from the basic assessment and the standardized tests). The student's processing rate is also considered. Taken as a whole, the educational plan provides a sequence of instruction: initial teaching (where to start teaching), reinforcement activity (with timing and graphing), and mastery level of achievement. In the upper portion of the plan the trainee identifies the student's learning style and the targeted areas where the child needs remediation (speed of functioning, math concepts, behavior, reading skills, language concepts, social skills). In the body of the plan, the trainee lists several learning objectives. (These objectives can relate to academic skills, specific learning disabilities, and/or behavior patterns). The criteria for measuring progress toward an objective are specified within the objective. Beside each objective are listed the kinds of interventions for the student and a space for the date of completion. These interventions include activities for initial learning reinforcement and for independent work.

The student has two more scheduled contacts with the Center: a follow-up one month later by the Center's specialist and a posttest toward the end of the academic year. For the most part, the classroom teacher implements the educational plan and monitors student progress, along with self-monitoring by the student. The Center views the follow-up and evaluation as very flexible; the extent of its involvement differs with each child.

Other CSDC Activities

The major goal of the Center dissemination effort is to stimulate interest in replicating the diagnostic/planning process. The main target groups are (in order of priority): educators, professional organizations (mainly for educators), parent groups, and the community at large. In the past two years, staff members estimate that over 2,300 people have been reached through dissemination.

Educators, the key target group, are the potential replicators of the model Center process. In presentations to this group, the Center staff emphasize the supportive services available, running a program on a limited budget, and possible long-term effects of precision teaching. This presentation is called "Awareness" and is a form of pre-training for the replication process. By and large, the same presentation is used for all audiences. Videotape is used as an important medium for transmission of awareness information.

Parent involvement in the project is formalized to some degree. Typically, the Center makes three contacts with a child's parents, either by letter or phone. The first contact (one week prior to the Center program) informs the parents about the project; the second asks the parents to fill out an evaluative survey on the project; and the third tells the parents that posttest data are available. The Center also invites parents to participate in two conferences: the first is to review the educational plan and the second is to discuss the posttest scores. The Center does not provide specific training or orientation for parents, nor do these parents have a special function in the remediation process. Parents interviewed varied in the extent to which they understood their child's problem and remediation; however, they all felt positive toward the project and sensed accomplishment by their children.

The state system of Centers has an Advisory Council, which functions for all seven Centers. The State Advisory Council's goals are: "(a) to advise the Project Director (of the state system) and project administration in determining that the project will attain the goals set, and (b) to assist demonstration centers in examining procedures of administering delivery system . . . as a resource center, an inservice training unit, a system for program monitoring and evaluation." In actuality, the Council does not usually meet with the local Center staff, nor does it give this Center direct advice. On occasion, Council members have met with the Center's specialists at state meetings.

Discussion

The Center's records and the state audit point to the success of many activities of this Center. Major strengths of the project are the following:

- Full support from the school system
- Facilities that are heavily used and arranged for simultaneous use in training of teachers and testing of students

- Good working relationship between the Center specialists and the school staff (regular classroom teachers, educational specialists, school psychologist, etc.)
- Productive partnership with local universities (The Center uses consultants from the university and provides information to university teacher-trainees.)
- Dedicated staff maintaining very full work schedules
- Thoroughly structured week-long replication training assuring consistent training
- Widespread dissemination of information about the project in order to interest districts in training and replication
- Apparent improvement in student skills and learning behaviors
- Parent satisfaction with student improvement
- Replication of major portions of the model in other districts

As replication is a major goal of this project, it may be useful to indicate criteria for successfully implementing this model. According to the coordinator of the project, there are at least three requirements for such implementation. First, a school system must have or train two specialists who can do assessment and write educational plans. Second, the educational plans must be implementable in the system's ongoing regular program. Third, the model requires three working areas: one for secretarial tasks, another for class use, and a third where staff, parent, or administrative conferences can go on independently or simultaneously with another class. Special materials and equipment are not needed since existing resources can be utilized.

The coordinator also mentioned some broader requisites for implementation:

- The school system must be dedicated to the cause of assessment and remediation.
- Its teachers must be willing to do extra work without pay.
- Its superintendent must be interested in the program and support it.
- Its staff must be willing to help other educators learn the techniques.

Because the emphasis in this project corresponds to the components of Public Law 94-142, the project expects to operate without any major changes in its basic design. Based on the audit team's report, it would appear that this Center fulfills its objectives to a commendable level which augurs well for continued support beyond the period of federal funding.

PROJECT K

Overview

Since its beginning in 1974, the primary purpose of this CSDC has been to develop a model that can be used to bring services to large, sparsely populated areas. This emphasis followed jointly from the state mandate to provide special education services to all who need them and the practical problems associated with providing special services in areas of low population density. An important ancillary purpose was the cultivation of close contacts with the State Department of Public Instruction with the goal of eventual statewide adoption of the model. The CSDC is housed in a research and development center in the Department of Education of the state university, which is located in a city of about 50,000. The area surrounding the CSDC is predominantly rural. Thus, the CSDC was ideally situated for developing the type of model described above--it was located in a rural area but had ready access to the technical resources of a major university.

The model developed by the CSDC calls for three types of centers, varying in the kinds or comprehensiveness of services provided. According to the model, the three types of centers have the following characteristics:

- Type I centers offer a full range of direct services to learning disabled (LD) children and provide training, technical assistance, and evaluation services to Type II and Type III centers. They may develop diagnostic and teaching procedures with supporting materials, give inservice workshops or formal instruction, develop teacher training materials and materials for classroom management for use by teachers, and work to extend services to areas where they are not available. Operation of a Type I center requires sophisticated staff and facilities; large school systems, universities, and state departments of education are the agencies most likely to be able to operate Type I centers. They will usually be established in highly populous areas.

- Type II centers are located in less populous areas having fewer resources than Type I centers. They work in close cooperation with Type I centers in identifying areas in which needs are greatest and in evaluating the effectiveness of services. Type II centers depend on Type I centers to supply services beyond their capabilities; exactly which services these are will vary from center to center.

- Type III centers are intended to supply services in very sparsely populated areas where it is impractical to retain a large, specialized staff. In a Type III center, itinerant teachers assist regular classroom teachers in modifying programs for the learning disabled. They rely on the resources of Type II and Type I centers, from which their staff receive training if necessary.

At the start of the project, the CSDC* established a Type I center in the School of Education at the state university, with the university serving as the contractor of record. During the 1974-75 school year, three subsidiary centers were established in cooperation with a nearby school district and two educational cooperatives (multi-county agencies responsible for providing special education services). Because of misunderstandings between the CSDC staff and administrators, CSDC involvement in the local school district was terminated at the end of the 1974-75 school year. The two cooperatives maintained their relationships with the CSDC for 1975-76, and one expanded its involvement by establishing a second center. By way of replication, an additional center was established in a third cooperative; altogether there were two Type II and two Type III centers in 1975-76. To summarize, the CSDC was organizationally a part of a research institute in the School of Education at the state university but operated the direct services component of its program through local educational agencies.

Funding/Staffing

During 1975-76, the CSDC received $145,000 through Title VI-G. An additional $2,000 of federal money was supplied through the state under Title VI-D. The cooperatives with which the CSDC worked contributed $15,000. In addition, the university provided $7,000 to hire graduate assistants, the Kiwanis Club gave $254, and the Area Learning Resources Center provided two of the cooperatives with $1,000 each with which they purchased materials for use by itinerant/resource teachers.

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*For convenience, the acronym "CSDC" will be used to refer to the Type I center in the balance of this case study.

Title VI-G funds paid for the part-time services of a financial administrator, the Project Director, and a field coordinator and evaluator. The last two persons spent two-thirds of their time on CSDC activities; the balance of their time was taken up with teaching and other faculty duties and was paid for by the university. Four people served as itinerant teachers; three of them were full time, while the fourth split her time evenly between itinerant teaching and curriculum materials development. One-fourth of the salary of one teacher was paid by a cooperative; the balance came out of Title VI-G funds. In addition, one of the cooperatives paid the entire salary of an additional resource teacher. Funds other than Title VI-G also paid for the part-time services of an assistant educational programmer and three graduate assistants.

The CSDC received nonfinancial support from a wide variety of agencies. At the federal level, National Learning Disabilities Assistance Project (NaLDAP) provided support for consultants and sponsored meetings at which staff of several CSDCs discussed common problems. The State Department of Public Instruction paid tuition for 28 regular teachers completing their LD certification requirements through "field-based" instruction using modules developed by the CSDC; this allowed a test of the materials that might not otherwise have been possible. The Department of Public Instruction also sponsored workshops conducted by the CSDC and worked closely with the CSDC in planning replication for later years. The educational cooperatives granted release time to regular teachers for inservice training and provided space and materials for use by the itinerant/resource teachers.

The state university provided consultation, space, clerical help, free computer time, and allowed credit to be granted to the regular teachers completing their LD certification requirements under Department of Public Instruction sponsorship. The local Kiwanis Club helped to develop and distribute a behavioral checklist for use by parents in making referrals; they also sponsored a workshop on learning disabilities for parents and physicians. The state chapter of the American Academy of Pediatricians joined the CSDC in sponsoring a conference dealing with learning disabilities and the roles of members of various professional groups in identifying and helping learning disabled children under state law.

Assistance from the Advisory Council came primarily through individual consultations with Council members rather than from the Council as a group. Assistance has been given by Council members in the areas of student identification, community involvement, and working within local school systems.

Goals, Objectives, and Related Activities

CSDC staff have engaged in a wide range of activities in an effort to achieve their overall goals of developing a model that can bring appropriate services to learning disabled students throughout the state. The four objectives below, adapted from the many goals, objectives, and activities listed in CSDC documents, provide a convenient framework for discussing CSDC activities.

- Objective 1: To develop and try out a model that can be used to provide an appropriate education for learning disabled children in a state with large, sparsely populated rural areas
- Objective 2: To develop materials and procedures for establishing individualized teaching-learning programs for learning disabled children
- Objective 3: To develop materials and procedures for training regular classroom teachers so that they may earn learning disabilities certification
- Objective 4: To disseminate project information and work with key groups and agencies to enhance the likelihood of statewide adoption of the CSDC model

Conceptual development of the model for service delivery, as described in the Overview, was essentially complete in the original funding proposal. Therefore, the discussion of activities undertaken to reach Objective 1 will concentrate on the establishment of prototype centers of each type.

The CSDC proper (i.e., the Type I center established on the campus of the state university) had access to the comprehensive resources of the university in the areas of special education, child psychology, speech and hearing, and materials development. Coupled with the expertise in learning disabilities of the CSDC staff, these resources rendered the CSDC capable of delivering the wide range of services envisioned for a Type I center.

To reach Objective 2, the CSDC developed a set of materials and associated procedures for itinerant/resource teachers to use with regular teachers in devising and implementing individual educational plans. In addition, CSDC staff conducted training sessions for regular teachers and other school personnel in the cooperatives serving as Type II and Type III centers. These workshops included discussions of the characteristics of the learning disabled child, assessment of learning disabilities, and programming for learning disabled children. Sometimes special topics, such as peer tutoring, were also included. The primary target at these workshops was the regular classroom teacher, but administrators, aides, and special education teachers of various specialties also attended; over 100 educators attended these workshops.

The main purpose of the materials and procedures was to aid in identifying those areas in which the demands placed by the learning environment were incompatible with the capabilities of a given child. The information then was used to rearrange the learning environment to eliminate or lessen such incompatibilities. As originally conceived, the materials were to have included a standard referral form, behavioral checklists, a structured interview guide, to be used by itinerant/resource teachers to gather information from regular teachers prior to preparation of educational plans, standard forms for the preparation of individual educational plans, and follow-up interview guides and observational systems for use by itinerant/resource teachers to determine how well regular teachers adhered to the plans. All the materials and procedures were developed and tried out; the structured interviews and the observational system proved impractical and were discontinued. The materials that continued in use are described below.

- Referral Form. This form was completed by the itinerant/resource teacher following a child's referral. Information in the following areas was gathered from school records and from interviews with the child's regular classroom teachers: academic placement and special services at the time of referral; previous psychometric, visual, hearing, or social-psychological assessment; the teacher's assessment of sensory functioning, emotional status, academic performance, and physical condition; and the areas in which the teacher felt the child needed the most help, or in which the teacher thought assessment should take place.

- Primary Skills Checklist. This checklist was completed by teachers following referral. The checklist concentrated on skills associated with five- to nine-year-old children in the following areas: behavior (in the sense of deportment), writing and spelling, reading comprehension, word recognition, oral reading, oral language, listening skills, and mathematics. All told, over 200 specific skills appeared on the checklist.
- Individual Educational Plan. The plan was a one-page document that listed instructional objectives; the level of difficulty of the objective (recognition, recall, comprehension, transfer, etc.); the modality best used to present materials for reaching the objective and the most desirable response modality; the materials, type of reinforcement, and instructional setting to be used to reach the objective and the amount of time to be allowed. In addition, the teachers' version provided space for recording the child's reaction to the instruction and his performance.

After the Referral Form and Primary Checklist were completed, a synopsis of the checklist results was recorded on a Pupil Status Sheet together with scores on tests administered by the itinerant/resource teacher or by a psychometrist.* Suggestions for remediation were also recorded on the Pupil Status Sheet and were used as the basis of the Individual Educational Plan developed by the itinerant/resource teacher. The itinerant/resource teacher and/or the regular classroom teacher then implemented the plan, reviewing progress periodically and revising the plan as necessary.

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*A psychometrist administered the WISC-R and the WRAT to each child. The itinerant/resource teachers selected tests (or items from tests) to suit each case. Tests used included PIAT, ITPA VMI, G-F-W, Goodenough Draw-a-Person, Key Math, Purdue Perceptual Motor Test, Mann-Suitor, Indiana Reading Test, Bender, and the locally developed Informal Reading Inventory.

If the state in which the CSDC is located is to expand its services to learning disabled children significantly within the next few years, the number of certified learning disabilities teachers will have to increase dramatically. Therefore, the CSDC also undertook to develop materials that could be used for field-based certification of learning disabilities teachers, as specified in Objective 3. To date, seven units have been developed. They are definitions and issues of learning disabilities; historical overview; assessment modules/methods of diagnosis; language and cognition; perceptual motor research and its implications; modality preference research; and hyperactivity/social behavior. Each unit includes an introductory audiotape, a set of objectives, learning activities (reading interspersed with quizzes), and a list of further resources. As noted earlier, the Department of Public Instruction sponsored students using these materials. Comments and criticisms made by students will be used in revision of the materials. CSDC plans call for expanding the use of the materials beginning during the 1976-77 school year.

Objective 4, which comprises activities related to ultimate statewide adoption, reflects the CSDC's serious concern with the primary justification for its existence: to improve the services to learning disabled children throughout the state, not just those areas near the CSDC. To achieve this objective, the CSDC carefully cultivated its relationship with the State Department of Public Instruction. Contacts were frequent--at least once a week by telephone and about once a month by visits to the CSDC by a member of the department. The CSDC and the state department cooperated to sponsor conferences and workshops for local directors of special education and have worked together to select future replication sites. The State Director of Special Education is slated to become a codirector of the CSDC with primary responsibility for statewide diffusion and adoption beginning in 1976-77.

Services to Students

During the 1975-76 school year, a total of 96 students received services either directly (52 students) or indirectly (44 students) from the itinerant/resource teachers. Most students were in grades K through 3, with a few in grades 4 through 6. The type of services a student received varied as a function of the cooperative in which he was enrolled; therefore, services rendered in the three cooperatives are discussed separately below.*

Cooperative A, which has a Type II and a Type III center, offered one-to-one remedial tutoring for most of the 31 students served. In one school, the itinerant teacher also worked with small groups that included children not referred as learning disabled. Services were given to each child for about 20 minutes, three times a week.

Cooperative B, which has a Type III center, had only two itinerant teachers to serve 21 learning disabled students in 20 schools. Therefore, the bulk of the remedial services was supplied by the classroom teacher who received an individual educational plan and consultation from the itinerant teacher. The itinerant teacher started remediation with two to six individual tutorial sessions and then turned it over to the regular teacher.

Cooperative C, which has a Type II center, has a single itinerant teacher to serve 44 learning disabled students in a three-county rural area. This teacher served primarily to coordinate identification of learning disabled students and to help with the case conferences required by state law. Practically all instruction was, therefore, up to the regular teacher.

While itinerant/resource and regular classroom teachers monitored student progress throughout the year, the only evaluative data that are available are comparisons of fall and spring teacher responses on the Primary Skills Checklist. For each of the over 200 skills, the teacher could indicate that the student had mastered the skill; the skill was emerging, but not fully mastered; the child lacked the skill altogether; or the teacher had had no chance to observe whether or not the child possessed the skill. By comparing fall and spring teacher evaluations on randomly selected students, CSDC staff were able to obtain a rough impression of whether or not the student had made progress toward mastery of each skill. These data, summarized in Table 1, show that teachers perceived no change in most skills in each area. These data are difficult to interpret, as was pointed out in the CSDC documents reporting them. The main problem is that there are no baseline data available showing the typical pattern of teacher responses when no special interventions are undertaken--progress should probably not be expected every year on every skill.

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*The discussion merely describes what was "typical" for each cooperative. In fact, procedures did not remain static during the year: assessment and materials preparation tended to take up more of the itinerant/resource teachers' time as the year progressed.

TABLE 1

Percentage of Skills in Each Primary Skills Checklist Area in Which Teachers Observed Student Progress[a]

	Behavior	Spelling	Reading Comprehension	Word Recognition	Oral Reading	Oral Language	Listening	Math
Progress[b]	30	18	16	24	30	29	9	35
No Change[c]	70	82	84	76	70	71	91	65

[a] The number of students observed in each area varied from 15 to 24. Students were randomly selected from grades 1, 2, and 3.

[b] Progress includes any movement toward mastery.

[c] Same status shown fall and spring. CSDC data made no distinction between skills that had been mastered in the fall and those that had not.

Only one parent interview was held in this state. The mother interviewed was very enthusiastic about her son's resource teacher, understood his learning problems in detail, participated in teaching him at home, and believed that she saw significant improvement in self-concept as well as in academics. More parent interviews were not held because CSDC staff felt that the project might be adversely affected if they were. The conservative residents of the area in which Type II and Type III centers were established are wary of outside interference in local affairs; this applies particularly to federal and university interference. Therefore, the fact of university and federal involvement had been mentioned little, if at all, in contacts with parents. Itinerant/resource teachers felt that revealing such involvement while arranging or conducting interviews could lead to local problems that might interfere with their efforts. They recommended that only a few parents be contacted; this was done and a single interview arranged.

Other CSDC Activities

In addition to the activities noted above, CSDC staff did the following:

- Prepared materials to help teachers set up peer tutoring systems in their classes.
- Prepared a series of papers discussing programming for secondary learning disabled students.
- Presented papers about CSDC programming at a large number of workshops and professional meetings and distributed CSDC materials widely outside of their own state as well as within it.
- Conducted workshops for parents which covered the implications of state law for serving learning disabled children, services offered by the CSDC, and tutoring strategies for use at home.
- Developed a quarterly newsletter concerning learning disabilities geared for regular teachers, and distributed it to teachers in the cooperatives served by the CSDC.
- Made materials developed by the research and development center in which they are housed available to the cooperatives served.

Discussion

The CSDC established very effective working relationships with the Department of Public Instruction and plans to become formally associated with it in the future. Thus, the CSDC has fulfilled its intended role of garnering active support in the state in which it operates.

The CSDC took care to evaluate its products and services, as evidenced by the evaluation and revision of teacher training materials and by the discontinuation of the structured materials when they did not prove workable. CSDC staff are aware of the desirability of more conclusive data substantiating student gains. The logistical problems of administering year-end tests to almost 100 widely scattered children with five itinerant/resource teachers constituted a serious obstacle to the collection of such data.

PROJECT L

Overview

This CSDC serves a midwestern farming state. From 1974-76, it provided technical assistance in program development to a total of 11 districts located primarily in the most sparsely populated areas of the state. The area reached by the CSDC covers about 33,000 square miles, and one of the technical assistance (TA) sites is 356 miles from the CSDC office. The state has more school districts than any other state, some consisting of no more than a one-room school house. Learning disabilities programs were almost nonexistent prior to 1974. The term did not appear in the state's literature on special education and until 1975-76, no state funding was available for learning disabilities programs. As a result, school districts were ill-prepared to comply with state legislation requiring that all verified special education students be served within the least restrictive environment by the end of 1976. (Under the rule, the handicapping condition of every identified student must be verified by a certified professional.) Neither resources nor qualified personnel were available locally. Based on a diagnostic/remedial model that was developed to serve Title I students, the project was designed to build the capacity of local districts to serve learning disabled students by training local staff in program development, diagnosis, and remediation. Training involved three phases: intensive workshops at the CSDC, on-site workshops, and site visits by CSDC staff. It was anticipated that programs would be fully operational after three years of technical assistance from CSDC staff.

The CSDC operates out of one of 17 educational service units created in 1968 by the state legislature to equalize supplementary services to all districts in the state. Service units contract with local districts to provide multidisciplinary services for students with special needs and employ a variety of specialists including psychologists, audiologists, speech therapists, educational social workers, media specialists, health specialists, art consultants, language diagnosticians, reading specialists, resource teachers, supervisors, and teachers of severely handicapped students. The service unit where the project is housed serves 53 school districts in 5 1/3 counties with a total student enrollment of about 13,500. The unit employs over 100 people, and all the project staff are members of the unit staff as well.

In 1974-75, five TA sites were selected to be in the project; none had a set of procedures for identifying learning disabled students, and the only services available were Title I remedial reading programs. (One of these five sites participated for the first year only.) The next year, 1975-76, six sites with similarly poor services were added to the project. For instance, only 2 of all 11 TA sites had staff assigned to work with learning disabled students. During the two-year period (1974-76), a total of 50 people from TA sites received some kind of training.

Funding/Staffing

The 1975-76 Title VI-G grant was $65,936. These funds covered staff salaries and benefits (for time spent on the project only), part of office expenses, consultants' and Advisory Council expenses, staff travel, and dissemination. Title VI-G funds represented about 87% of the project's total budget. The unit's contribution to the project included providing space and facilities and paying for all or portions of the following expenses: telephone bill, supplies, inservice training, and trainees' lodging. The state paid the remainder of trainees' lodging, meals, and mileage. In addition to providing release time for the trainees during the school year, some local education agencies paid for substitute teachers while teachers attended training workshops. After local staff are trained and the learning disabilities program is operational, LEAs provide instructional materials, equipment, and facilities for the program.

Support from service organizations and the local ACLD has been very good and was praised by project staff. Two service organizations donated money which was used to buy equipment and to operate summer school programs for a small number of students. When the governor of the state impounded special education funds, the Kiwanis Club and ACLD organized a letter-writing campaign protesting the action. The ACLD has also referred new students to the unit and has counseled parents.

The project experienced several difficulties with funding. Late notification of funding from BEH created problems for both the CSDC and the TA sites. Until firm notification of funding was received, project staff could not plan the extent of services they could provide to TA sites, and, in turn, the sites were unable to do realistic budget forecasting. Tardy reimbursement of funds from BEH placed a burden on the unit as well, since unit funds had to be used until the money arrived from BEH. A third problem occurred at the end of the 1974-75 school year when the project was suddenly informed that it could not carry funds over to the next year, as it had been planning to do.

The key project staff consisted of the Director (full time), seven diagnostic/remedial specialists (one of whom was the project coordinator), and a full-time secretary. The coordinator spent about 75% time on the project and was responsible for planning unit training sessions as well as conducting some of them. She also held workshops at the TA sites and made many of the site visits with the Director. The other specialists devoted considerably less of their total work time to the project. Their primary project responsibility was to train staff from TA sites; the rest of their time was spent on diagnostic activities for the unit. Since most of the key staff received their training from the same person (who was on the project's Advisory Council), they shared very similar theoretical positions on assessing learning disabled children, and therefore, training in the philosophy of the CSDC model was not necessary. Staff development activities included monthly conferences for project staff and bimonthly inservice training meetings for all unit staff, including resource teachers The monthly project inservice meetings were conducted by consultants. Topics were determined by the staff and included the following: problem-solving techniques, emotional problems, learning disabilities remediation, test administration and interpretation, student assessment and evaluation, budgeting, legislation, language dysfunctions, reading, transactional analysis, and programming for secondary level students.

Six instructional modules that were developed by project staff in the areas of language arts, arithmetic, and screening and diagnosis were used for the unit inservice instruction during the 1975-76 year. The modules are geared for use with children in kindergarten through grade 8. One of the project's goals for the current year (1976-77) is to publish the modules as monographs and disseminate them to all TA site trainees. Staff meetings were frequent. Both project staff and unit staff held separate weekly planning meetings. Individual staff members attended professional conferences throughout the year as well.

Goals, Objectives, and Related Activities

The goals of the technical assistance delivery system developed by the project are to help TA sites with the following activities:

- The conceptualization of a program for learning disabled students
- The outlining of a program development sequence
- The development of procedures to provide service to students
- The development of staff skills in diagnosis and remediation of learning disabilities
- The development of procedures for providing inservice training to local personnel

These were accomplished by (a) three or four week-long training sessions for selected staff from the TA sites that were held at the educational service unit, (b) workshops at TA sites, and (c) on-site visitations made by CSDC staff throughout the year. The model is designed to train administrators, diagnosticians, and resource teachers, and at least one trainee in each field from all the sites participated.

Sites that had asked to participate were examined on the basis of the following criteria: lack of weakness in existing services, interest in developing or strengthening a program, availability of ancillary services, and geographical locale. Site selection was made in conjunction with the State Department of Education and project staff. Information regarding the status of special education services and the roles and competencies of the trainees was collected by project staff during preliminary interviews and visits to the sites and then used to design individual training programs for each site. The content of the traineeships fell into these broad categories: (a) program development, (b) assessment, and (c) teaching. For every TA site, specific individualized objectives were written to develop and/or strengthen staff competencies in these areas. Program development objectives focused broadly on defining and operationalizing a learning disabilities program and on being cognizant of state and federal legislation, due process requirements, the least-restrictive alternative concept, etc. Diagnostic, or assessment, objectives were designed to develop staff's skills in screening, test administration and interpretation (formal and informal), and preparation of diagnostic reports and educational plans based on the data. Teaching objectives included use of instructional objectives, behavior management techniques, materials, and other teaching techniques. Task analysis and identifying students' assets and deficits were emphasized as bases for instruction.

Four training workshops were held in 1974-75. During the first meeting, several areas of program development were touched upon, including an introduction to the field of learning disabilities; identifying procedures for referring, screening, and identification; training in IQ and achievement test administration; and ways for educating classroom teachers about learning disabilities. Individual conferences were held, and trainees visited resource programs near the CSDC. Activities of the second training session went into more detail about the characteristics of learning disabled students, administration and interpretation of processing tests, and recording student data by assets and deficits. Trainees also practiced test administration with children who had been referred to the unit for assessment. The third training session was devoted to remediation methods. At the final meeting, trainees were assigned a student to diagnose. They also wrote educational plans for the student and a case report. This work was reviewed by project staff and returned to the trainee. Training was conducted in each area by members of the project staff who had expertise in that area. Other service unit staff participated on a limited basis. Many handouts were distributed, and training packages for each of the three components (program development, diagnosis, teaching) were developed. Trainees then had materials to disseminate to their districts and to conduct inservice meetings with their colleagues.

Workshops, the second major project activity, were conducted on site at the request of local staff and, as with the training, were planned to meet the unique needs at each site. CSDC staff also gave workshops for parents, administrators, and school boards. Project staff made follow-up visits to TA sites throughout the year to help local staff with their particular problems and to monitor the progress of program implementation.

In 1975-76, CSDC staff continued to assist the original TA sites in expanding their programs, and six new sites were added, most of which participated in three training workshops as well as on-site workshops and site visits.

To determine the impact of the technical assistance, TA sites were assessed in these eight areas: (1) developing a philosophy of special education, (2) developing administrative practices, (3) developing staffing patterns, (4) developing procedures for identifying high risk children, (5) defining the population in question, (6) developing diagnostic services, (7) developing criteria for placement, and (8) developing remedial skills. Their progress is summarized on the following page.

Services to Students

Since each site is at a different level of program development, it is difficult to generalize about services to students. Two sites had progressed to the stage of remediation, and students from most of the other sites had been diagnosed and educational plans had been written. All TA sites use the federal definition of learning disabilities, which was modified slightly in accordance with the state's requirement that the handicapping condition must be verified by a certified or licensed professional. All TA sites also use common placement criteria to determine eligibility. The problems displayed in the child should be associated with deficits in psychological processing (e.g., discrimination, memory, concept formation). Other characteristics of a learning disabled child include a normal IQ, a marked discrepancy between the child and the rest of the class in some areas of achievement, and a pattern of deficits in both curricular and processing areas. Other causes for poor performance, such as physical handicaps or an emotional disturbance, are investigated and ruled out. The procedures for placement are in accordance with state legislation and are common to all sites as are

		Number of Objectives in which the site is either:					
		A. Fully Operational		B. Operational with Assistance		or C. In Training	
Training Area	No. of Objectives In Training Area	2-Year sites(n=4)	1-year sites(n=6)	2-year sites(n=4)	1-year sites(n=6)	2-year sites(n=4)	1-year sites(n=6)
Developing Administrative Practices	5	8[a]	3[b]	8	15	4	12
Developing Procedures for Identifying High Risk Children	8	18[c]	1[illegible][d]	13	29	1	7
Organizing Diagnostic Services	6	15[e]	4[f]	6	20	3	12

[a] Maximum number possible: 20

[b] Maximum number possible: 30

[c] Maximum number possible: 32

[d] Maximum number possible: 48

[e] Maximum number possible: 24

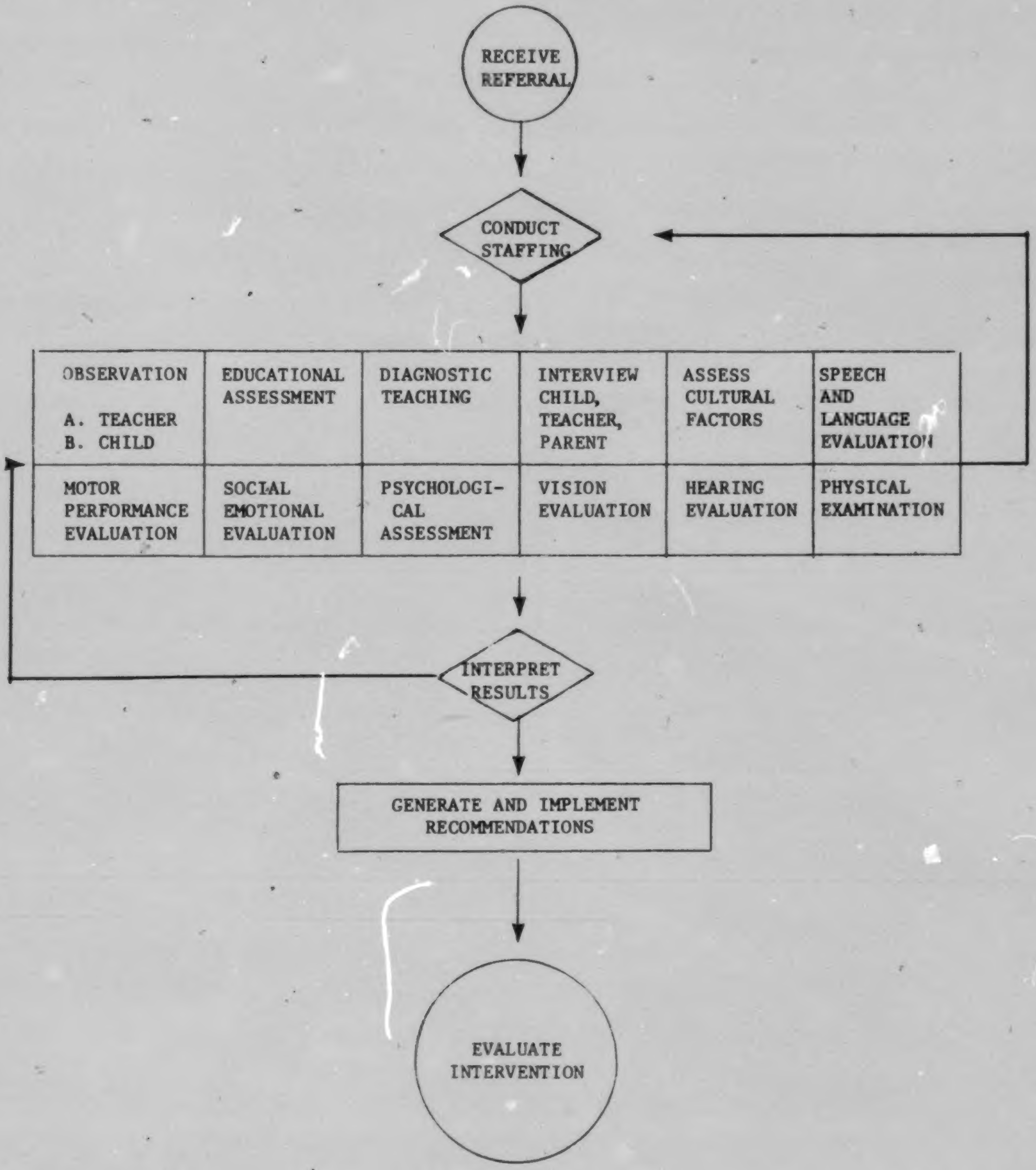
[f] Maximum number possible: 36

Progress in the Other Areas

- From 1974-76, a total of 75.38 local staff had been either reassigned or recruited and trained by CSDC staff. (This figure is reported in full-time equivalency and includes local staff who resigned.)
- All TA sites identified their learning disabled students.
- By June 1976, second-year trainees were fully developed in 15% of basic diagnostic skills, required assistance in using 67% of the skills, and were still learning 18% of the skills. First-year trainees were fully developed in 1% of basic diagnostic skills, required assistance in using 64% of the skills, and were still learning 35% of the skills.
- By June 1976, 49% of second-year trainees demonstrated competence in standardized testing, 34% required assistance, and 17% were still in training. Of first-year trainees, 28% demonstrated competence, 40% required assistance, and 32% were still in training. Trainees were expected to learn how to administer and interpret one IQ test, four achievement tests, and seven tests of information processing.
- By June 1976, 28% of second-year trainees were fully developed in major remedial skills, 42% required assistance, and 28% were still learning the skills. Of first-year trainees, 7% were fully developed in some of the skills, 44% were receiving assistance, and 47% were still being trained.

student assessment procedures, which are illustrated in the following figure.

Student Assessment Procedures


RECEIVE REFERRAL
CONDUCT STAFFING
OBSERVATION A. TEACHER B. CHILD
EDUCATIONAL ASSESSMENT
DIAGNOSTIC TEACHING
INTERVIEW CHILD, TEACHER, PARENT
ASSESS CULTURAL FACTORS
SPEECH AND LANGUAGE EVALUATION
MOTOR PERFORMANCE EVALUATION
SOCIAL EMOTIONAL EVALUATION
PSYCHOLOGICAL ASSESSMENT
VISION EVALUATION
HEARING EVALUATION
PHYSICAL EXAMINATION
INTERPRET RESULTS
GENERATE AND IMPLEMENT RECOMMENDATIONS
EVALUATE INTERVENTION

Other CSDC Activities

The project's Advisory Council is composed of six people, each of whom has been an invaluable source of information and support to the project. All have been active in disseminating project information. Two members are with the State Department of Education (one in the Division of Special Education and one in the school finance section) and keep the staff updated on activities of the legislature that might have an impact on the project. One of them gives advice on budget reporting requirements, and the other department member has been the project's entré into local districts and has helped select TA sites. He has also spoken about the training needs of special education personnel with colleges and university staff.

Another very active Council member is a prominent educator in the field of learning disabilities who has recruited most of the CSDC staff. He has also conducted many staff training sessions and yearly evaluates the project. One member has worked with staff on teacher certification, and the director of the service unit, who is a member as well, has been very successful in improving communications with local administrators.

Because of its close relationship with the service unit, the project has benefited from workshops planned by the unit and conducted by state consultants. Individual staff members have been involved with several college and universities, setting up training programs for college students and teaching summer school. They use these opportunities to disseminate information about the project. One college gave credit toward a resource teacher endorsement to students working as interns with the project. TA sites that are Title I schools have Title I Parent Advisory Councils which work with learning disabilities personnel at those sites. The unit maintains contact with the two mental health systems within its service area and with the welfare department. Project staff have also used the expertise of a local audiologist who is developing a new procedure to uncover auditory processing problems in children who seem to be otherwise sensorily intact.

Dissemination of project information has been accomplished by the following methods:

- Slide/tape presentations to service clubs, parent groups, church groups, colleges, and at professional meetings
- Workshops for all school staff at three TA sites
- A visit from an Australian county superintendent
- Television and radio news spots done by the local ACLD
- Newspaper articles
- Project brochure
- Attendance of Advisory Council members at workshops and conventions
- Conferences attended by staff
- A magazine article

Staff felt that their personal contacts were the most effective ways to communicate the essence of the project because of their enthusiasm and personal commitment to the model. Much of the dissemination has been in response to requests for information, and staff expressed the need to develop a systematic dissemination plan. During the past two years, dissemination activities infringed upon their other responsibilities somewhat, but they tried to do as much as they could with the resources and time available. Developing dissemination procedures is now an important goal.

Since the focus of the project is on program development and staff training, "the parent awareness level is still in the embryonic stages," to quote the Director. In fact, some sites have not reached the stage of providing services to students, which was the case at one of the sites visited. At the other site, two parents were interviewed about the help their children were receiving. Both mothers supported the local programs and noted improved school achievement and social behavior in their children.

Discussion

Because of the variability from site to site, it is very difficult to draw conclusions about the overall success of the project. Some TA sites were receptive and supportive; others were cautious and conservative. A few sites were plagued with internal problems that caused difficulties for project staff. Some classroom teachers were skeptical. But in general, the most significant, common problems encountered by CSDC staff were the following:

- Lack of awareness of learning disabilities
- Fear of change and mistrust of anyone from outside their immediate environment on the part of the local staff
- Lack of support by superintendents or school board

Physical hardships such as severe winters and great distances between TA sites posed difficulties too. In trying to overcome the obstacles created by local personnel, center staff members emphasized success stories from other sites and continued to develop and use strategies for increasing the awareness of school personnel. Public relations was a big part of site visits. So that there will be no misunderstanding in the future about what is expected from TA sites, written objectives for the traineeships will be mutually agreed upon by project staff and TA site staff. CSDC staff also hope to increase their effectiveness by making more site visits. The project would have benefited had the state's involvement with and support of all special education been greater. For instance, the state is supposed to reimburse districts for 90% of their special education expenses, but actual support is only about 40%. The staff felt that, to improve the quality of local programs, the state should consider adopting the CSDC model for the purpose of building the capacity of local districts in other areas of special education.

There were, however, several bright spots for this project. One of the Advisory Council members from the State Department of Education was a constant source of support for the staff. He worked very closely with them during the selection of TA sites and found out what he could about local school politics (who was likely to give them trouble, who would cooperate, etc.) before the initial site visit. He was committed to the model and represented it to state-level personnel as one that would diffuse technical assistance services throughout the state. Another mainstay in the project, also an Advisory Council member, was a professor of special education. Staff reported that he had a special ability to identify and analyze problems that he saw when he visited the project and then clearly and simply describe how to solve them. He worked with staff to develop their problem-solving skills too.

The ambience of the service unit was one of relaxed productivity. The unit's administrator fully supported the project and gave staff working on the project freedom to explore new roles and assume different responsibilities. Finally, the dedication and energy of the Director and the coordinator were very much in evidence and appear to be important contributing factors to the project.

The project submitted a three-year continuation proposal to the Bureau of Education for the Handicapped in the spring of 1976 and received funding for one year on the condition that the proposal be modified to include objectives for one year only. Assuming that the revised proposal is accepted by the Bureau of Education for the Handicapped, the project will focus on four major activities during 1976-77: (a) adding two TA sites, (b) fully operationalizing third-year TA sites, (c) publishing and disseminating the instructional modules, and (d) collecting student data.

PROJECT M

Overview

The CSDC serves a large, midwest state. Student characteristics are as varied as the communities in which they live, which range from metropolitan areas to suburbs to sparsely populated farm land. When originally proposed, the project was seen as a way by which seed money from the federal government could be combined with state and local funds to expand special education to two previously unserved populations, preschool children and high school students. A few years ago, fewer than 5 of the state's 617 school districts had programs for these students. By 1975-76, 13 districts had received assistance from project staff and had implemented programs. CSDC staff consult with local districts and assist them in developing learning disabilities programs that are both within the philosophical framework of the project and responsive to the needs of the students at each locale.

The goals of the project are to identify the developmentally disabled preschooler and learning disabled high school student; to develop, implement, and refine two models to serve the identified populations; and to use the models as a basis for establishing state standards for serving these two populations. The preschool model is an intensive, totally individualized program of teaching to observable developmental weaknesses in the children. The high school model utilizes the Learning Center (LC) concept in which students come to the learning center for supplemental tutoring in a class or for intervention, in which the LC teacher supplants the regular classroom teacher for one or more classes. During 1975-76, 24 preschool children from two districts participated, and 16 high school learning centers in 11 districts were in operation, serving 257 students.

In 1973, the State Department of Education adopted a set of program standards for special education that specify, by handicapping condition, program requirements that local districts must fulfill to receive state funds for special education. At that time, statewide incidence figures indicated that about 5% of the school population required remediation for learning disabilities with services ranging from supportive service personnel in the regular classroom for 2% of the population, supplementary tutoring in regular classes for another 2%, and for the remaining 1%, either special classes in the schools or special classes out of the schools. The high school component of this project is targeted for that portion of students who need learning disabilities instruction in special classes within the school.

The CSDC is an integral part of the state's Division of Special Education. Districts wishing to be included in the project submitted proposals specifying the target population, rationale for implementing a learning disability program, and features of the program to the Division office. The CSDC staff read the proposals, rated them according to a list of priorities, and selected project sites on the basis of their ratings. The original replication plans called for almost doubling the number of sites served in the second year, but state funding priorities shifted to serving out-of-school children, and the necessary level of support from the state was not available to the CSDC. Therefore, only two high school sites could be added to the project in 1975-76.

Funding/Staffing

During the second year of funding (1975-76), the total budget was $725,650, of which $67,100 were Title VI-G funds. The difference was shared by the state department of education and local districts implementing learning disability programs. Federal funds paid the salary of one of the CSDC staff members, some instructional materials and equipment purchased for those schools most in need of special materials, consultant expenses for inservice training, a secretary, some CSDC staff travel, development of dissemination materials, supplies, office equipment, and miscellaneous overhead expenses. State funds paid for the Project Director's salary and a large part of the learning disability teachers' salaries. The state reimbursed local districts for the minimum salary level, and districts paid the difference between that figure and teachers' actual salaries. Local districts also provided furnished classrooms, assessment materials, and some instructional materials and equipment. Districts also had to guarantee that part of the local special education supervisor's responsibilities would include monitoring the program.

All districts have access to one of 16 special education regional resource centers (SERRCs) located throughout the state. The SERRC network was established with Title VI-B funds. Specific services of the SERRCs that have had impact on the project have been SERRC-sponsored training workshops for state employees on topics such as fiscal management, legislation, and supervisory techniques. Special education materials, housed at Instructional Resource Centers (a component of the SERRC network), were available to special education teachers.

During the first year, the project staff consisted of three people: the Director and two educational specialists. Staff assignments changed between the first and second year, and the new Director could not assume the position until late fall. By that time, it was too late to fill the vacancy created when she was promoted. As a result, the second-year staff consisted of only two people, who shared equally the responsibilities of the project. The second-year Project Director was also a learning disabilities consultant for the state, and the other CSDC staff member was technically responsible to the governing board of one of the SERRCs. The CSDC office is located in the Division of Special Education.

Goals, Objectives, and Related Activities

The basic goal of the first two years of the project was to establish learning disability programs for preschool and high school students throughout the state. To achieve this during 1975-76, the CSDC staff provided technical assistance to local staff in 13 districts (2 preschool and 11 high school) in all areas of program development (e.g., student assessment, materials selection, tracking student progress, due process requirements, involvement of local school personnel). Early in the school year, CSDC staff make monthly visitations to each site. However, the frequency of visits tapers off during the year as the program develops and the local learning disability supervisor is able to assume more responsibility for the program. CSDC staff monitor program development with MBO (management by objective) sheets. A blank MBO sheet used for high school programs is given on the next page. After the visit, they prepare a written report that reviews what transpired during the visit and what recommendations were made to local staff. Copies of the report are sent to personnel

EXHIBIT A

Management by Objectives (MBO) Title VI LD Consultants

Tasks	Dates		Recommendations: (Materials, Skills, Necessary Changes, etc.	Evaluation		Comments
	Beginning	Completion		(Process	Product)	
1) Teacher certified in LD						
2) Standard size classroom						
3) Total student enrollment						
A. Breakdown of services						
1) Diagnostic						
2) Intervention						
3) Supplementary						
4) Contact hours per week						
A. Student instruction hours						
B. Teacher/program hours						
5) Parental permission obtained						
6) Medicals completed						
7) Psychologicals completed						
8) Achievement testing completed						
A. Pre						
B. Interim						
C. Post						
9) Student profiles updated						
A. Referrals						
B. Interviews						
C. Skill assessments (math/reading)						
D. Diagnostic reports						
E. Staffing reports						
F. Instructional strategies for each student						
G. Weekly assignment sheet						
1) Regular class assignments						
2) Learning center assignments						
H. Contracts						
I. Behavior rating scales						
J. Tracking sheets						
K. Weekly time sheets						
L. Materials and equipment rating sheet						
10) Program operating to trial standards						
11) Teacher competencies						
A. Program has academic emphasis						
B. Individualized student planning is utilized						
C. Other, please specify						
12) School team performing their responsibilities						
13) Regular education curriculum supervisor identified and working cooperatively with the LD supervisor						
14) Inservice performed with regular education teachers						
15) All courses offering credit are utilizing an approved curruculum outline. (Copies are on file with the teaching strategies.)						

in the Division of Special Education, to the SERRCs that are the educational consultants fiscal agents, and to administrative personnel within the local district. A follow-up letter summarizing the meeting is sent to the teacher and the learning disability supervisor.

In August, learning disability teachers receive a packet from the CSDC that contains instructions about what the teacher's responsibilities will be during the year, reporting and testing requirements for the CSDC, a timeline, assessment instruments, and a variety of forms helpful in fulfilling the reporting requirements. With a few exceptions, the forms can be adapted to suit individual sites.

During the first meeting the CSDC staff confer with local personnel (usually the principal, the Learning Center teacher, the learning disability supervisor, a psychologist, and possibly other specialists) to define the role and responsibilities of each member of the school team, review the reporting requirements for the project, talk about instructional materials, and establish criteria for selecting students for the program. Sites had to develop tangible screening criteria. For high school programs, the local staff also determines what the program focus will be (e.g., precollegiate, vocational education, skills remediation, survival skills).

In subsequent visits, project staff inspect student records to see that they are current and complete and that educational programming is appropriate. In addition, at high school programs they look for evidence of communication between the teacher and other school personnel, usually through joint inservice training meetings with regular teachers and coordination with the learning disability supervisor and regular education curriculum supervisor. They are always available during the year to answer questions from local staff, to do what they can to iron out difficulties with other personnel on site, and occasionally to make emergency trips to deal with particularly touchy problems.

Pretest/posttest data include for preschool children performance on the Santa Clara Inventory of Developmental Tasks and for high school students, Peabody Individual Achievement Test (PIAT) scores, a social behavior rating, locally administered achievement test scores, anecdotal records, and a short questionnaire answered by classroom teachers, parents, and students, asking about attitudinal and academic improvements in students. At the end of the year, teachers report all these data along with specific processing problems of each student on student tracking sheets. To determine program effects, pretest/posttest PIAT scores of project student (high school only) were compared with what is considered normal growth on the PIAT, based on national norms (0.1 per month). Program impact was defined as growth above and beyond normal growth. Average growth of students across all project sites for the 1975-76 school year was one year greater than normal growth. These results were very encouraging to project staff and indicated to them that the project's impact on students' education growth has been significant enough to suggest national validation.

Services to Students

Under state law, preschool children may be served in this type of program if they are 3, 4, or 5 years old; are of average intelligence or above; do not have severe hearing, visual, or motor involvements; and display one or more of the following characteristics: poor speech and language development, poor fine or gross coordination, inability to reason accurately, a modality weakness (visual, auditory, tactile), short attention span, impulsive behavior, inability to function in a social group, and poor self-help skills. School-age children are eligible for instruction if they have average or above-average intelligence (IQ of 80 or above); exhibit a significant performance deficit in one or more of the basic educational areas as determined through an educational assessment including standardized test data and classroom observational data; and do not have severe visual, hearing, or motor involvements. Local districts may establish more specific criteria to serve those students with the greatest need.

In the preschool model, referrals come from a variety of sources (e.g., early screening programs, local preschools, health professionals, and community agencies). Once a child has been identified, written consent from parents to test the child must be secured. An evaluation team is identified, and children are given an informal assessment of developmental skill perforance and a more formal multifactored assessment that includes at a minimum an intelligence test and an evaluation of preacademic and social behavior.

These instruments are administered locally by qualified personnel. Developmental data may also be collected from parents. After a child has been assessed, a placement committee meeting is held to review the data and decide whether the child's developmental lags indicate a high academic risk. Those children whose test batteries reveal a significant developmental lag are eligible for the program.

The educational philosophy of the preschool program is learning by doing, and activities are planned to develop the total child. Classes are small (6 children per session) and last for two hours a day. Using the results of the Santa Clara Inventory, the teacher prepares for each child a weekly plan that focuses on teaching a specific skill. Children are also checked out on a set of very specific activities in the areas of motor coordination, visual-motor performance, visual perception, visual memory, auditory perception, auditory memory, and affective development. Individual activities are then designed for each child in those areas where he or she is underdeveloped. Programming also includes a variety of other common preschool activities, such as art projects, music, listening to stories, and playing outside.

In addition to seeing most of the parents monthly during required parent meetings, preschool teachers try to visit the home at least three times during the year. For children entering kindergarten, preschool teachers work with kindergarten teachers to facilitate the transition for the child into kindergarten.

Preschool teachers maintain individual profile packets with screening data; medical, parental permission, and parental commitment forms; anecdotal notes; instructional activities and related activities; and correspondence with parents. Teachers also categorize and record instructional activities used to develop each skill. All these records are inspected during visits from CSDC staff.

In the high school programs, about 90% of the referrals are from classroom teachers, although percentages varied from site to site. The remainder of the referrals come from other school personnel, parents, or students themselves. A prescreening meeting is held to determine if the student was referred because of a legitimate educational or emotional problem and not because of a personality conflict between the teacher and student. The available data are reviewed and if warranted, the Learning Center teacher is contacted to be part of the evaluation team. Permission for testing is then obtained from parents and students. Students are also told what the testing will involve and, depending on the outcome, what programming might be recommended for them. Psychological and diagnostic testing is done by appropriate school personnel. The Learning Center teacher's assessment includes the following: achievement testing, criterion-referenced testing, classroom observation, and a student interview. A behavior rating is completed by the referring teacher, the Learning Center teacher, and the student and the results compared.

The evaluation team then holds a staffing and, if the data indicate a learning disability, recommends programming in accordance with the least restrictive alternative concept. (Parents are notified of the staffing.) Depending on what services are available at the school, the options may include curriculum adjustment within the regular classroom; supplemental tutoring; placement in another program such as work-study or vocational education; or placement in the Learning Center program. If the latter option is recommended, the student must meet the criteria established by the school team and CSDC staff, and a medical report must be obtained.

Within the Learning Center program, two kinds of services are available. The first, supplemental tutoring, involves the student coming to the Learning Center at specified times during the day for assistance with specific skills or for help in a particular class. The other service, intervention, is provided when the student cannot function at all in the regular class. The LC teacher uses a course outline approved by the curriculum specialist or department chairperson to plan and teach the class. The emphasis in intervention is on the remediation of basic skills needed for graduation. The LC teacher also gives the grade in the intervention class. Individual education plans and weekly assignment sheets are prepared for all students. The project recommends that each Learning Center serve a minimum of 15 students, with 4 to 10 students present at one time. To ensure that students are being adequately served, the project requires

LC teachers to have a minimum of 150 hours of contact with their students each week. This includes one planning period. Teachers are required to record contact hours weekly and submit these records at the end of the year. Contact hours are monitored by project staff during their visitations and by the local learning disability supervisor.

Phasing a student out of the Learning Center program is done gradually, and another staffing is held to review all the data available before a student returns to the regular class on a full-time basis. Generally students who are uncooperative, have a poor attendance record, or whose progress has plateaued are dropped from the program.

LC teachers are often involved in diagnosing students who are not finally assessed as learning disabled. Teachers send a report to the CSDC office of all students diagnosed so that the project has a record of the total number of students served.

Other CSDC Activities

In the preschool programs, parent education and active involvement is a top priority. Preschool teachers must submit a plan to CSDC staff outlining a parent involvement program, including a schedule for monthly parent meetings which parents are required to attend. Early in the year, personal letters are mailed to parents explaining the parent involvement program, the intent of which is to broaden parents' awareness of developmental disabilities while equipping them to deal more effectively with their own children at home. Parents discuss aspects of developmental areas and have an opportunity to ask specific questions and share experiences. They receive activity sheets that illustrate ways to use daily experiences and materials commonly found around the house to strengthen their children's skills. A small number of mothers were interviewed at one of the preschool sites, and all expressed strong support for the program and for the parent meetings. They were quite aware of their children's problems and of their school activities, and all had worked with their children at home on activities from the meetings.

In the high school programs, parent involvement consists primarily of conferring with the parents during the staffing when the student is being assessed and periodically throughout the year to report changes in the student. Parent meetings and parent training are the responsibility of the local school staff. The small number of parents interviewed at one high school were supportive of the program and felt that the program had had positive effects on their children's behavior, attitude toward school, and grades. All parents praised the Learning Center teacher for her efforts and extra attention to immediate problems. They reported many contacts throughout the year with her, in addition to routine conferences for progress reporting.

Inservice training for LC teachers and their supervisors has been planned by the CSDC staff for both years of the project. During the 1975-76 school year, two 2-day meetings were held for the high school staff and one 2-day meeting for the preschool staff. Reading in the content areas was the major focus of both high school workshops, which were conducted by specialists in that field and state consultants. Other topics covered were career education for learning disabled students and social adjustment for teachers. As a way to introduce classroom teachers to dealing with learning disabilities, one regular teacher from each site was invited to attend the first training workshop to learn how to accommodate learning disability students in a regular classroom. Preschool consultants discussed other preschool programs for handicapped children, preschool assessment, and behavior modification techniques.

With the exception of NaLDAP workshops, training for CSDC staff has been largely confined to workshops sponsored by the State Department of Education and attendance at state ACLD and CEC meetings. The Project Director uses these opportunities to disseminate information about what the Title VI-G project is, how to begin an LC program, and what a learning disability is. Dissemination activities are focused on school personnel and parents. Written information (a brochure and a set of handouts describing the preschool and high school models) has been sent to every county in the state as well as to many other states and foreign countries that have requested information. The CSDC staff has also given on-site presentations to local staff in 56 counties (about 70%), to parent groups across the state, and to professional organizations. Information about the project has also been disseminated by state educational consultants, and project staff have been asked by many districts to speak about the project. They have received positive feedback on their dissemination activities and feel they have been successful in these endeavors.

From their experience with the project, the staff developed two handbooks that suggest procedures and make recommendations to other sites about beginning a learning disability program. The handbooks contain an array of forms culled from the demonstration sites for collecting information on students and for assessing their progress, a list of materials, and a list of assessment instruments. Also discussed are how to identify potential learning disabled students, the sequence of events a student follows from referral to returning to the regular classroom on a full-time basis, and key people who should be involved at each step. The preschool handbook goes into more detail on how to involve parents and the community in the program, classroom arrangements, and specific teaching strategies. The materials list was compiled from teachers' ratings of materials available for them to use. The handbooks also include a list of possible topics for inservice training meetings that might be conducted by LC teachers with classroom teachers. The handbooks are being disseminated extensively throughout the state and are sent to people requesting copies.

No special Advisory Council was formed when the project was funded. This function was performed by existing bodies within the state, the most active of which has been SERRC governing boards. When the proposal was written, the governing boards of the SERRCs where the educational consultants would be housed, reviewed the proposal, made suggestions for changes, and agreed to act as fiscal agents for the consultants. The project staff submitted monthly progress reports and about three times a year made presentations of their activities to the governing boards. Other activities of the Project Director were approved by a state-level administrative task force.

Discussion

This CSDC provides technical assistance in program development to school districts across the state. During the first year the focus was on developing models to serve preschool and high school students. The second year provided the opportunity to refine the models by selecting the most successful aspects of the first-year programs and compiling the handbooks from them. In addition, some features of the project have been incorporated into the state standards for serving learning disabled students. For instance, the student contact hours concept is now being used, rather than an average daily attendance requirement. It is anticipated that additional changes will be made in the standards as a result of the project.

The preschool program has been dropped from the CSDC and will be included as a component of an early education task force (as yet not operational), which will coordinate all early identification and intervention programs in the state. To provide more comprehensive services to high school students, the next three years of the project will focus on these activities: (a) development of precollegiate and prevocational components, (b) development of circumventive teaching strategies for use by classroom teachers to individualize curriculum for learning disabled students, and (c) development of training packets for a peer-tutoring and volunteer aid program. The project is serving 36 high school classes this year (1976-77), which is an increase of 20 from last year, and, based on the number of requests received, expects to pick at least 16 more sites each year for the next two years.

Special features of the project include the following:

- Total integration of the CSDC into the state's Division of Special Education. Functionally the CSDC is a component of the Division of Special Education.
- Considerable expansion of services across the state. By using consultants to go out to the sites and by requiring districts to make certain commitments before they can be included, the project has had a multiplier effect and has prepared local districts to assume responsibility for educating learning disabled students.
- Increased education of local school personnel. The project encourages interaction and coordination between the special education teacher and local staff to increase their awareness of the field of learning disabilities. Classroom teachers have become quite good at identifying and referring students.

- Possible adoption of the model to serve students with other special needs. If the model proves workable and effective, it may be adopted by the state to serve all special education students.

- Attention to program evaluation to measure program effects on students.

- Industriousness and competence of project staff. During the second year, two people accomplished a job that had been designed for three people. Both are extremely well organized and appeared to have good working relationships with their colleagues in the division office as well as with staff on site. Cooperation from local staff was attributed to the flexibility of the project. Since the models needed to apply in various settings, the Director did not impose rigid procedures on demonstration sites. The staff's job was to answer questions and solve problems, and they encouraged LC teachers to adapt the forms and instruments to suit their needs. The Director, however, was firm in what was required from sites in the way of student data and program evaluation.

PROJECT N

Overview

This CSDC serves a large, sparsely settled, and predominantly rural state. Approximately 40% of the school-age population comes from a minority group with distinct cultural and linguistic characteristics. Prior to the beginning of the CSDC program, special education services in the state were largely confined to self-contained classrooms in a few urban areas. Most of the smaller, isolated communities had neither services for educationally handicapped students nor state funding for itinerant teachers to work with such students in regular classrooms.

The CSDC was originally funded in 1972-73 as a possible answer to several state needs: parents and educators were looking for alternatives to self-contained classes; there was a general lack of either resource room or itinerant services; and many rural areas were unable to support special education programs unless such programs could be carried out by regular classroom teachers within the regular class structure.

The CSDC's program was designed around a theoretical model for mainstreaming that had been developed within the department of special education at a local university. The underlying philosophy of the model was that a continuum of services should be available to children with varying degrees of disability and that the major goal of these services should be to allow the child to function adequately in the school setting. The model has since been incorporated into the state plan for the delivery of special education services. This plan delineates four levels of service to children based on severity of need:

Level 1	For children with minimal special learning needs--those who do not require a basic modification of the regular curriculum but who can remain full time in the regular classroom with support and back-up.
Level 2	For children with mild learning needs--those who do not require a basic modification in the regular curriculum but who do need some additional intensive, remedial assistance in a resource room.

Level 3 For children with moderate learning needs--those for whom the content, methods, and/or pacing in the regular classroom are inappropriate and for whom the basic curriculum must be modified.

Level 4 For children with severe learning needs--those for whom the regular classroom program is totally inappropriate and unresponsive and who must be served by a special teacher in a special classroom.

According to state guidelines, learning disabled children could be appropriately served under Levels 1, 2, or 3. However, the CSDC encompasses only the first two levels of the model.

During the past four years, CSDC staff members have concentrated on providing or facilitating the inservice training needed to implement Levels 1 and 2 in participating schools. Training is primarily for special education teachers who provide both itinerant (Level 1) and resource room (Level 2) services within a given school. For Level 1, this training prepares the special education teacher to observe the student in the classroom, evaluate the student's skills and deficits, and prepare an educational plan to be carried out by the regular teacher. In Level 2, the assessment and planning processes are the same, except that the student spends part of the day in the resource room for more intensive help.

An important characteristic of this project model is its cyclical nature. That is, students must spend a required amount of time in each level before the decision is made to (a) move them into a less restrictive environment, (b) assign them for another period of time to the same phase, or (c) move them to a more intensive program.

During 1975-75, the project served 676 students in grades 1 through 8 in 16 school districts throughout the state.

Funding/Staffing

During the 1975-76 school year, federal funding for this project under Title VI-G was $67,000, including $15,000 in carry-over money from 1974-75. These funds paid the salaries of the three full-time staff members: a project director, a project coordinator, and a secretary. They also paid for the services of university consultants used for inservice training as well as travel expenses for the staff and office supplies.

In 1975-76, the bulk of project support, estimated to be $396,600, came from state, local, and other federal sources. State funds paid the salaries of the 27 special education teachers who had been trained by the project to provide itinerant/resource services in the 30 participating schools. The services of 20 diagnostic/remedial specialists were available to the project, and these services were paid for by local school districts. In addition, 10 curriculum materials specialists from four Regional Special Education Service Centers and one Area Learning Resource Center in the state provided services to the project through a combination of state and Title VI-B funding. Many of the individualized materials used by teachers in the project as well as some of the training materials were provided by the resource centers. Not included in the budget figures were the services of numerous aides and student teachers who worked with project students and teachers in the classroom.

The CSDC office is located within an urban school district. This district provided office space and equipment and served as the project's fiscal agent. All of the district administrative services were available to the project staff when needed. Two nearby medical centers accepted referrals from teachers for diagnostic workups and other needed health services such as vision tests. Community mental health clinics accepted teacher referrals for both child and family counseling. Some of the schools in the project had social service workers on their staffs who provided liaison between the project teachers and the homes of students.

Goals, Objectives, and Related Activities

The major goal of this project has been the replication of the two levels of the mainstreaming model through gradual expansion into (a) new schools, (b) new districts, and (c) new grades throughout the state. The underlying design to accomplish such expansion is that of a ripple effect, in which project staff members train special educators, who in turn train classroom teachers in the procedures for implementing the model. As the project has grown, there has been increasing emphasis on a commitment from the classroom teachers to provide training for other teachers within their schools.

In carrying out the replication process, CSDC staff members have been guided by four major objectives during the four years of operation:

- To expand the project to new schools and new districts
- To establish demonstration programs in strategic locations within the state
- To provide demonstration programs with research techniques that would support the validity of the model
- To support the state plan for a continuum of services through technical assistance and program evaluation

CSDC staff members feel that the four objectives have been met and that effects of the project have spread throughout the state. From a core of eight project schools in four districts in 1972-73, the project had expanded into 30 schools in 16 districts by 1975-76. These schools are widely dispersed around the state and include rural and urban settings; elementary and junior high schools; and schools of differing sizes, serving students from different social, cultural, ethnic, and economic backgrounds. There is at least one demonstration site within each of the four areas served by Regional Service Centers, the main intent of the second objective.

In addition to the expansion of services to new schools and districts, the scope of training provided by the CSDC has also been expanded. During the first three years of the project, training was provided to project teachers (itinerant/resource personnel) only. In 1975-76, those project teachers who had already been trained worked with regular teachers at the home schools, while CSDC staff members were able to train both project and regular classroom teachers from new sites and to provide workshops for school administrators. The regular classroom teachers trained in 1975-76 have made commitments to hold workshops in their own schools to introduce the model and its procedures to other regular classroom teachers. Thus CSDC staff feel that the effects of the project have been extended to teachers who are not in the project and that improved individualized procedures are being used with many children who have special needs, even though they are not classified as learning disabled or educationally handicapped. The design of the project and many of its procedures, forms, and evaluation methods have been adopted and disseminated throughout the state by the State Department of Special Education. There are indications that many school districts which have had no direct contact with the CSDC are adopting the objectives of the model.

More and more of the services of the Center are being promoted by the State Department of Special Education without the direct involvement of the CSDC. For example, the state has assumed some of the responsibility for planning and coordinating the monthly inservice workshops for teacher training. This has given the CSDC director and coordinator more time to visit project schools, where they serve as consultants to both teachers and administrators, and to provide evaluation services to project sites. They also are able to give technical assistance, under state auspices, to rural districts which are just beginning to implement the newly adopted state plan for special education. CSDC staff members feel that this plan, described earlier, has evolved as a result of the effective demonstration of the model by the CSDC. The project also served as a catalyst for the first state funding of itinerant teachers in special education in 1974.

Services to Students

Although the major activities of this CSDC are focused on training and replication, there are specified procedures for the referral and diagnosis of students served by the model, and student progress is closely monitored and evaluated by the director and coordinator. During the first year of the project, 295 students were served by the project; in 1975-76, 676 students received services. Of these, 280 students were in the itinerant program only (Level 1), 301 were in the resource room program only (Level 2), and 95 were served at different times in both programs.

The state definition of learning disability is similar to the federal definition, although it stops short of using diagnostic terms such as dyslexia and aphasia:

> A learning disabled child is one with normal intelligence who exhibits one or more significant deficits in the essential learning processes of perception, conceptualization, language, memory and control, attention, and impulse or motor function. These deficits may be demonstrated verbally or nonverbally. A discrepancy between expected and actual academic achievement is observable. These problems are not primarily the result of visual,

hearing, or physical handicaps; of mental retardation or emotional disturbance; of the lack of opportunity to learn; or of lack of experience with the English language.

The process by which students are identified as learning disabled is spelled out in the state plan and is followed by the project when selecting students for CSDC services. Briefly, the procedures are as follows:

1. Most referrals come from the regular classroom teacher, who provides the project teacher with information about the student's academic deficits, behavioral characteristics, past achievement, and any pertinent medical information or other evaluative data which has been collected on the child.
2. If it appears from this information that the child might have a learning disability, permission is obtained from the parents to give the following diagnostic tests:
    a. A test of intellectual functioning
    b. A behavioral characteristics rating scale (completed by the classroom teacher and designed to identify behaviors which are associated with learning disabilities
    c. An achievement test
    d. At least one test in each area of suspected difficulty to determine processing deficits
3. An appraisal and review committee, consisting usually of the school nurse, counselor, and principal, meet to review the test data and to recommend the appropriate placement for the student. The parents' permission is obtained for this placement and for subsequent changes in the student's program.

Theoretically, each child newly identified as learning disabled enters the project through the itinerant program (Level 1). However, students in Level 2 at the end of one year may begin the next school year in the same level.

Once the student has been placed in the itinerant or resource program, the educational plan to be developed for that student is not specified by the CSDC model. It is felt that the specific strategies and materials to be used with each student are best determined by the itinerant/resource teacher and the student's deficits as determined by the diagnostic testing. Copies of the individualized plans, which are prepared on a daily and/or weekly basis, are kept by the resource and regular classroom teachers, and one copy of each plan is forwarded to the CSDC project office. For the most part, the plans make heavy use of individualized, programmed materials, such as Distar Language Development and Monterey Reading, and of manipulative materials. When warranted, contingency management or behavior modification objectives and procedures are also specified for the student.

The progress of all students in both levels of the project is measured three times a year by administration of the Wide Range Achievement Test. Results are reported in terms of actual vs. expected gain, and the difference between the two scores is attributed to the effects of the project. The formula used to measure gain is as follows:

$$\text{Treatment gain} = \text{actual gain} - \text{expected gain}$$

When: $\text{actual gain} = \text{posttest} - \text{pretest}$

and: $\text{expected gain} = \frac{\text{pretest score}}{\text{months in school}} \ \text{X} \ \text{months in treatment}$

The analysis of WRAT scores for 1975-76 (see Exhibit A, page N-8) shows a positive treatment effect for all students in all phases of the project and in all academic areas. In interpreting these results, however, it should be pointed out that "treatment" is defined only as participation in the project, and test results for comparison or control groups are not reported. Neither is it possible to correlate gain with any one method of educational programming, other than a general use of diagnostic tests and individualized plans.

Further analysis of evaluative data by the CSDC staff shows the following:

- Of the students in the project during the past two years, 25% were considered ready to return to a regular classroom program.

EXHIBIT A

1975-1976 Summary Table

	Actual Gain	Expected Gain	Treatment Gain	Hours Per Week	Time in Treatment	Years in School	Total N
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	
Reading							
Itinerant Total[a]	+7.9 mo.	3.1 mo.	+4.8 mo.*	2.0 hr.	4.6 mo.	4.1 yr.	364
Itinerant Target Area[b]	+8.0 mo.	2.7 mo.	+5.3 mo.*	1.6 hr.	4.6 mo	4.4 yr.	272
Resource Room Total	+7.7 mo.	3.3 mo.	+4.4 mo.*	3.0 hr.	5.4 mo.	4.2 yr.	385
Resource Room Target Area	+8.2 mo.	2.9 mo.	+5.3 mo.*	2.0 hr.	5.6 mo.	4.4 yr.	271
Spelling							
Itinerant Total	+6.9 mo.	2.7 mo.	+4.2 mo.*	2.0 hr.	4.6 mo.	4.1 yr.	364
Itinerant Target Area	+9.2 mo.	2.4 mo.	+6.8 mo.*	1.5 hr.	4.4 mo.	4.1 yr.	138
Resource Room Total	+6.6 mo.	3.0 mo.	+3.6 mo.*	3.0 hr.	5.4 mo.	4.2 yr.	385
Resource Room Target Area	+8.0 mo.	2.6 mo.	+5.4 mo.*	2.1 hr.	5.3 mo.	4.3 yr.	137
Math							
Itinerant Total	+6.0 mo.	3.3 mo.	+2.7 mo.*	2.0 hr.	4.6 mo.	4.1 yr.	364
Itinerant Target Area	+9.3 mo.	2.6 mo.	+6.7 mo.*	2.0 hr.	4.0 mo.	4.0 yr.	80
Resource Room Total	+6.3 mo.	3.5 mo.	+2.8 mo.*	3.0 hr.	5.4 mo.	4.2 yr.	385
Resource Room Target Area	+9.2 mo.	3.1 mo.	+6.1 mo.*	2.4 hr.	5.3 mo.	4.6 yr.	119

*$p < .05$

[a] Total Scores = gains made by all students in each academic area.

[b] Target Area Scores = gains made by students who received special programming and assistance in this particular academic area.

- In the three academic areas tested, there was no significant difference in the actual gains of children being served in the itinerant program and those being served in the resource room program, although project teachers spent less time with children receiving itinerant services.
- In the period between pretesting and interim testing (approximately the first half of the school year), student gains were nearly twice as great as during the period between interim and posttesting. Although the reason for this phenomenon could not be determined, it was concluded by staff evaluators that the initial period of intervention appears to be the most productive--a finding with implications for districts with limited resources and large numbers of students to be served.

Other CSDC Activities

Information about the CSDC project, and the theoretical model on which it is based, has been actively disseminated by staff members, project teachers, and consultants through a number of channels:

- Meetings with school district administrators and teachers
- Presentations at meetings of the PTA and local ACLD and CEC chapters
- Newspaper publicity about presentations and workshops
- Lectures to special education classes at the local university
- Widespread distribution of a brochure and reports describing the project
- Use of a slide presentation at state, regional, and national conferences
- Articles published in professional journals

In addition, the project director and coordinator attend weekly staff meetings of the State Department of Special Education where they give regular briefings on the progress of the project.

Parent involvement in the project varies from site to site. In the past, both the project administrators and a university consultant have conducted workshops in behavior management for parents at the request of local districts. Attendance was approximately 20 to 30 parents at each of the three or four sessions of each workshop. However, during 1975-76, no specific parent involvement activities were planned by the CSDC because of the wide variety of needs and interests of parents in project schools as indicated by the project teachers.

Eight parents were interviewed in two of the larger school districts in the CSDC project. All of them showed a good understanding of the goals of the project and were extremely favorable toward it. Nearly every parent described improvements in their child's academic work and behavior.

Responses from questionnaires sent to members of the Advisory Council indicate that the Council as a group has not been heavily involved in the activities of this CSDC, although a few individuals indicated some involvement in the preparation of the proposal and provision of liaison with local school districts.

Discussion

As noted earlier, the project has attained successfully its objectives as a demonstration center and as an initiator of new programs. Its impact at the state level is evident in the influence it has had on state policies for special education. During the past four years, the project has utilized a number of key strategies which appear to be instrumental in its consolidation and expansion of services to learning disabled children:

- Close relationship with the State Department of Special Education. The CSDC has been instrumental in shaping and carrying out the new state plan for the educationally handicapped. The State Department of Special Education, in turn, has provided information, coordination between the CSDC and local districts, inservice training for administrators, and cooperative assistance in the training of special education and regular classroom teachers. State support is seen by the project staff as a major factor in the understanding and involvement of the regular teachers.

- Liaison with the four Regional Service Centers in the state and use of the Centers' resources in the diffusion and replication process
- Attention to the readiness of local districts to adopt the CSDC model. The CSDC works with the State Department of Special Education to identify where (a) services are needed and (b) sites are ready to accept the model. Sites are then selected on the basis of administrator attitudes, willingness to innovate, availability of special education teachers, and strategic location in the state.
- Use of the "multiplier effect" in replication. Over the past four years, CSDC staff members have concentrated on consolidating the project in a few sites before moving into new ones.
- Use of the "multiplier effect" in training. The effects of training have been maximized through the process of CSDC staff members training project teachers, who then train regular classroom teachers, who in turn are expected to train other teachers in the project schools. Staff members feel that this method of diffusing information has benefited many teachers outside the project who have exhibited an increased understanding of learning disabilities and of teaching strategies for meeting the special needs of students.
- Attention to evaluative data as a means of validating the model and proving its effectiveness to other educators in the state
- Close association with a local university, whose faculty members have provided a basic conceptualization for the project, as well as continued support through consultant services and student interns to work in the classroom

For 1976-77, the project initially received a one-year continuation contract under Title VI-G to provide technical assistance and training to the entire teaching staffs of three selected districts. However, federal funding was withdrawn in the fall of 1976, and the extent to which the project will continue with local and state support is unknown.

PROJECT O

Overview

This CSDC served a demographically diverse state with large, industrialized urban centers and sparsely populated rural areas. The CSDC was located in one of the less populated areas of the state consisting of farms and small towns. The population of the region is about 95% Caucasian, although the state includes large minority populations in its large cities. Although no records were kept, CSDC staff felt that the ethnic breakdown of the first-graders through sixth-graders served by the project matched that of the region as a whole. The town in which the CSDC was located is the home of a major university, and the heavy university influence at the start of the project was evident in the research and development emphasis although university involvement decreased over the life of the project.

The CSDC began receiving federal funds during the 1972-73 school year and has been funded by BEH with supplementary ESEA Title III funding since then. Its two major purposes were to develop a model service delivery system that could be used throughout the state and to provide direct services to students in selected school districts near the CSDC to demonstrate the model and test its effectiveness. The CSDC model provided procedures for identifying and teaching learning disabled children that emphasized educationally relevant testing and development of instructional objectives, strategies, and materials based on test results. The model provided for student placement along a continuum of services from mainstreaming to resource room placement to full-day or half-day special classes. In practice, only mainstreaming and resource room placement were utilized during 1975-76.

There are three educational agencies with which the CSDC is adminstratively connected: the State Department of Education, one of the school districts in which services are delivered, and an "intermediate unit," a multicounty organization reporting to the State Department of Education with responsibility for assuring that special education is provided within its jurisdiction. Organizationally, the CSDC is a part of the intermediate unit and helps the latter to fulfill its responsibility to learning disabled children. At the same time, it is under the administrative direction of the school district so that local control of CSDC activities is maintained. It also reports to the State Department of Education, which is the official Title VI-G contractor. Title VI-G funds come to the CSDC through the intermediate unit, which handles the bookkeeping; other funds come through the intermediate unit or the school district. Thus, the CSDC reports to the state, which will be concerned with the effectiveness of the model, and works with an intermediate unit and a school district in testing the model, as these are the types of entities that will implement the model if it is adopted statewide.

In addition to developing the model, installing it in school districts for testing, and evaluating the success of services rendered in these districts, CSDC staff also developed materials to help others implement the model. These materials included a program guide for setting up a similar system, materials for use by resource teachers in implementing the system, and tests for assessing children.

Funding/Staffing

During 1975-76, federal funding for this project was $142,693; $86,393 came from Title VI-G, while the balance was Title III money. The total state and local contribution, administered through the intermediate unit, was $60,000. Title VI-G funds paid for the full-time services of the Project Director, an inservice specialist, a media specialist, and an administrative assistant; Title III funds paid for an aide. In addition, Title VI-G monies provided the part-time services of two statistical research consultants, a parent-effectiveness program trainer, a teacher-effectiveness program trainer, and a secretary. Title III and Title VI-G funds were also used for test and materials development, basic research on learning disabilities, and for conducting preservice and other training.

State and local funds were used for the salaries of six resource room teachers and for materials. These teachers, while officially employees of the intermediate unit, were selected and supervised primarily by the CSDC staff. Two school psychologists, not on the project staff, worked closely with the CSDC; they were intermediate unit employees.

The CSDC received nonfinancial support from many groups and agencies. Federal agencies offered suggestions on proposal preparation; state agencies helped to set up the project advisory panel, assisted in materials distribution, referred other districts to the CSDC for technical assistance, conducted literature searches, lent commercial curriculum materials to the CSDC, and gave technical assistance in seeking "state validation" which is necessary for replication within the state. Local education agencies provided space for resource rooms, administrative direction, and some materials; the local university provided consultant services in developing screening, remediation, and program evaluation procedures. A local mental health center accepted referrals for family counseling and psychotherapy, while a family services agency accepted a suspected child abuse case.

A 17-member advisory panel provided technical assistance in all areas from assessment and instruction to how to work with the state educational structure. This assistance was provided primarily from 1972 to 1974; the council was disbanded for 1975-76. A smaller planning and policy subcommittee, which met about four times a year from 1972 to 1975, proved more useful in providing timely assistance than did the full committee. Individual members of the subcommittee were consulted frequently during 1975-76 to help with specific technical or adminstrative problems.

Goals, Objectives, and Related Activities

CSDC staff identified a large number of specific goals and objectives and then undertook to reach their overall goals of developing and testing a model delivery system. For the purposes of this case study, they may be grouped into the following three major objectives:

- Objective 1: To develop a system for diagnosing and instructing learning disabled children that will include behavior management in the home and school
- Objective 2: To develop or identify materials needed to set up the model system, to run the system once it is set up, and to make these materials--or information about them--widely available

- Objective 3: To provide direct services to demonstration centers for implementing the model diagnostic and instructional procedures, including training for parents, and to test the effectiveness of the procedures

Activities related to Objectives 1 and 2 are discussed in the balance of this section; activities related to Objective 3 are discussed in the next section, Services to Students.

The model system developed to reach Objective 1 incorporates a diagnostic-prescriptive approach to identifying and teaching learning disabled children, defined as children of normal intelligence who are having academic difficulties and who have a perceptual or language deficit. Procedures are designed to identify learning disabled children in a way consistent with the state definition, which is the same as that incorporated in Public Law 91-230.

The identification process includes the following steps:

1. Following referral, a learning disablities specialist meets with the classroom teacher to determine if the referral is appropriate and if testing is warranted. This may include classroom observations by the specialist.
2. If the referral is warranted, a battery of individual academic, intelligence, and perceptual tests is given by the learning disabilities specialist, who then prepares a diagnostic summary based on the test results and professional judgment.
3. Following testing, a placement decision is made by the classroom teacher, the learning disabilities consultant, and other professionals as appropriate in particular cases. Parents are also involved in this decision as required by law and insofar as they are willing to participate. Possible placement decisions are inclusion in a special class, resource room placement, mainstreaming, and no special services.

Once the placement decision is made, an instructional strategy is implemented in accord with the teaching model. This model calls for the following steps:

1. Test results, school records, and classroom observations are reviewed to provide information for the formulation of an instructional hypothesis--a description of the student's strengths and weaknesses, together with listing of instructional priorities.
2. Once the instructional hypothesis is developed, specific instructional objectives are written and incorporated into an individual educational plan together with a description of the materials and methods to be used in reaching the objectives. The latter may include participation by parents or tutoring by other students.
3. Finally, the educational plan is implemented and the teacher(s) responsible for carrying out the plan continually evaluate its effectiveness in terms of objectives reached. If objectives are not reached, the reason for the failure is determined and the instructional hypothesis is revised with modification of the objectives or the methods used to reach them.

Three types of material were needed to reach Objective 2: materials describing how to set up and operate the system, assessment materials, and materials for implementing the instructional program. In most cases, satisfactory materials were commercially available; in others, they had to be developed by the CSDC.

A manual was developed to help others install the CSDC model system. The manual details the steps in the identification and teaching models and includes chapters on the history of learning disabilities, identification of learning disabled children, preparation of instructional objectives, and selecting materials and procedures for reaching instructional objectives. A supplementary manual explains how to set up and operate a resource room.

CSDC staff also have developed general tests for identifying learning disabled children. These tests are intended to supplement commercially available materials and were developed only when CSDC staff perceived gaps in the former. Locally developed tests and inventories include a Test of Auditory Perception, a Multiple Choice Bender, a Phonics Skills Inventory, a Mathematics Diagnostic Inventory that tests math skills needed up to Grade 4, and a Preschool Screening Inventory. A research study was conducted that investigated the predictive validity of the Test of Auditory Perception and

Multiple Choice Bender, with promising results--the tests were able to discriminate subjects who would learn sight words best by using visual as opposed to auditory methods and vice versa. In an effort to inform the professional community of these instruments, CSDC staff presented information about them at the 1976 ACLD convention, where 45 requests for further information were received.

For conducting instructional programs, CSDC staff have developed a Form Constancy Program to help children learn to discriminate among simple shapes, a Memory and Sequencing Program, a Peer Tutoring Manual for use by teachers in setting up peer tutoring programs in their classrooms, and a Parent-Tutor Manual with tips for parents on how to help their children at home. These materials were designed to fill gaps left by commercially available materials. The bulk of materials actually used in instruction were developed by resource teachers as described below.

In addition to developing its own materials, the CSDC distributes information about commercially available tests and measures and instructional equipment to about 500 educators in its state. About 50 "descriptor sheets" have been prepared and distributed; each sheet concisely, but thoroughly, describes one product. CSDC staff members feel that all of these activities have enabled them to meet their three major objectives.

Services to Students

During the 1975-76 school year, direct services were provided to 161 elementary school children in two school districts. The year before, 268 students had been served in three districts. The third district continued to operate the program on its own during 1975-76. Except as otherwise indicated, the balance of this section refers to services during 1975-76.

About 200 referrals were received, with approximately 95% coming from classroom teachers. After conferences and testing using the procedures described above, about 80% of the students referred were adjudged learning disabled and admitted to the project.* Of those admitted, about 95%

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* Each year, some students who were eligible could not be accommodated for one reason or another. These students served as controls for measuring project effectiveness.

received resource room services, while the balance were mainstreamed (i.e., received all remedial services in the regular classroom). Thus, the primary responsibility for carrying out the educational plan rested with the resource room teacher. In some cases, parents, classroom teachers, or peers were also involved. The educational plan was available to the resource teacher, but not to the classroom teacher unless the child was being mainstreamed. In any case, resource teachers assisted classroom teachers by providing suggestions for teaching learning disabled children during the greater part of the day when they were in regular classes.

Children received from 30 to 45 minutes of individualized instruction in a resource room two to five times a week, with 30 minutes three times a week being typical. Each resource room teacher worked with a total of 20 to 24 children. Usually, services were one to one, but sometimes groups of two or three would receive services together. Academic difficulties received primary attention in the resource room. Resource room teachers developed about 3/4 of the materials used, usually by synthesizing materials from two or more published sources to meet the individual child's needs. Resource room teachers were responsible for day-to-day monitoring of student progress, while other CSDC staff measured student gains over the course of the year.

Student gains for the year were measured by readministering the test given at the start of the year. Table 1 shows gain scores for 1974-75, the last year in which data were available. Table 2 shows the results of t-test comparing treatment and control group gains for that year. These results, which replicate those for 1973-74, constitute impressive evidence for the effectiveness of the intervention.

Other evidence of progress comes from interviews with parents conducted during AIR's visit to the CSDC. Of eight parents interviewed, seven noted changes in their children. Four reported academic improvements; two, increased self-confidence; five, improved attitude toward school; one, improved behavior; and three, increased frustration tolerance. Seven of the parents reported that their children liked the project, and all indicated personal support for it.

TABLE 1

Gain Scores
1974-1975 Data

	PIAT* Mathematics	PIAT* Reading Recognition	PIAT* Reading Comprehension	PIAT* Spelling	TAP**	Multiple Choice Bender**	Bender**
Demonstration Site #1	.8	1.4	.8	.9	1.4	4.7	1.7
Demonstration Site #2	1.0	1.3	1.1	.8	2.2	5.0	1.8
Demonstration Site #3	1.0	1.2	.6	1.0	1.5	3.5	1.8
Combined Demonstration Site	1.0	1.2	.7	.7	1.6	4.4	1.8
Control Group	.5	.8	.3	.6	.8	2.3	1.7

*Grade Equivalent
**Raw Score Gains

TABLE 2

Total Treatment Group Gains Vs. Control Group Gains
1974-1975

Raw Score Gains	Control X	Control SD	Treatment X	Treatment SD	t-value
PIAT Mathematics	3.923	5.635	8.357	6.370	4.045***
PIAT Work Recognition	4.256	3.661	6.600	4.271	3.202***
PIAT Reading Comprehension	3.359	4.451	6.617	5.025	3.247***
PIAT Spelling	4.564	3.747	5.852	5.385	1.425
TAP	.846	3.631	1.643	2.864	1.518
Multiple Choice Bender	2.256	6.016	4.424	6.626	1.893
Bender	1.667	3.029	1.757	3.559	.146

*Significant at = 0.05 (1-tailed test)
**Significant at = 0.01 (1-tailed test)
***Significant at = 0.001 (1-tailed test)

Other CSDC Activities

In addition to the activities outlined above, CSDC staff have performed these tasks.

- They have conducted preservice training for 14 resource teachers in the school districts where direct services are given. These sessions lasted for five days and provided basic instruction in psychometrics, with an emphasis on procedures used by the CSDC in assessing learning disabled children. Training also included discussions of instructional objectives, instructional stategies, and evaluation of student progress. A preservice package, including a slide presentation, was developed for use at these sessions.
- They have conducted preservice sessions for regular classroom teachers. These one-day sessions covered the nature of learning disabilities, typical behaviors of the learning disabled child, instructional techniques, and how to make referrals.
- They have conducted a Teacher Effectiveness Training program for classroom teachers. This program provided 30 hours of instruction spread over four months.
- They have trained parents. The Parent-Tutor Program provided parents with basic information about learning disabilities and with specific tutoring skills for use at home. The Parent Effectiveness Training program was designed to help parents cope with emotional problems of their children. Five of the eight parents interviewed during AIR's visit to this state had attended one or both of these types of training and reported that the sessions helped them in dealing with their children. Moreover, evaluations completed by ten participants at the close of the 1975 Parent-Tutor Program were overwhelmingly favorable.
- They have conducted research on the effects of the label "learning disabled" on teacher perceptions of behavior and on teacher expectations. They found that teachers "observed" problem behavior indicative of learning disabilities while viewing a videotape of a normal boy after being warned in advance that he might be learning disabled.

- They have edited the newsletter of the state ACLD chapter and have made presentations at state, local, and national ACLD meetings. They have also presented at local Kiwanis and PTA gatherings and at the national Council for Exceptional Children convention.

Discussion

The main strength of this CSDC lay in the thoroughness and practicality of its approach to developing a model system that could be replicated, in testing the effectiveness of the system, and in providing the materials necessary to set up the system elsewhere. That is, the CSDC sought to serve as a true model center.

Center staff also attempted to establish effective working relationships with the school districts they served. In this, they clearly have been successful with one of the districts that participated during the 1975-76 academic year. They were less successful with one of the districts that participated during the 1974-75 academic year, as misunderstandings about the respective duties of the district and the CSDC led to friction that ultimately caused the CSDC to withdraw.

A further strength of this CSDC was that its staff exhibited a healthy concern about abuse of the term "learning disabled" and its application to children who are not learning disabled, but merely troublesome. This concern was expressed during AIR interviews with CSDC staff and was shown in more tangible form in the research mentioned above.

The CSDC did not reapply for federal funding because the State Department of Education withdrew its support from the CSDC in favor of a proposed project in a higher priority area of the state. The CSDC could have reapplied as a private organization, but the termination of Title III funds associated with the withdrawal of state support rendered this approach economically unfeasible.

Notwithstanding withdrawal of support, the CSDC earned state "validation" which meant that the CSDC model was eligible for replication using state "disseminator-replicator" grants. Three school districts that received such grants (of $7,000-$8,000) are receiving technical assistance from the former CSDC Director in setting up learning disabilities programs. He is helping them to establish administrative structures for service delivery and to set up resource rooms; he is also providing training to resource teachers.

PROJECT P

Overview

This CSDC serves five school districts in three counties which make up one-third of a large, sparsely populated, western state. Vast, mountainous distances and long, hard winters make geographical isolation the norm for the majority of the populace. In fact, the distances are so extreme that one CSDC resource specialist (learning disabilities specialist) is headquartered almost 200 miles from the CSDC's main office and another two have to travel considerable distances to attend staff meetings. The 10 communities served by the CSDC are distinguished by their regional differences. For example, one is a resort town; another one in a secluded valley is populated predominantly by members of a small religious sect; and the population of a third has a high transient rate because of the instability of jobs associated with a burgeoning mining industry of fossil fuels and other chemicals that are abundant in the region. Within this varied region the CSDC serves students in kindergarten through grade 12. Nearly 100% of these project students are Caucasian; approximately 1% are Hispanic.

The CSDC operates out of a regional Board of Cooperative Educational Services (BOCES). The BOCES was first established in 1971 so that the psychological assessment services of itinerant specialists could be contracted for and shared by the school districts in the region. Today the BOCES, on a contract basis, also provides the region with other services of itinerant specialists, inservice workshops, and an educational resource center. Four years ago (1972-73), when the BOCES first received Title VI-G funds to implement a learning disabilities (LD) program in the elementary school of one town, there were no other learning disabilities services in the entire three-county region. By 1975-76, the program had been replicated in nine other towns.

The project's model provides for direct services to students by means of itinerant resource specialists, who diagnose students, prepare educational plans, and train local paraprofessionals to carry out the educational plans in the home schools. The main goal of the project is to maximize the number of students served by thoroughly training paraprofessionals who will then directly provide the resource specialists' services to students. (One of the school districts served by the CSDC had a special education department before the BOCES' learning disabilities service became available. The resource specialist there serves more as a learning disabilities consultant and trainer of instructional aides than as a learning disabilities diagnostician and supervisor of educational plans implementation.)

Funds/Staffing

Title VI-G funds, $83,400, pay the salaries of the project's 20 paraprofessional aides. They also provide one-third of the salaries of the Project Director, the bookkeeper, and the secretary. Some materials are also bought with Title VI-G funds. The salaries of four resource specialists are paid by the LEAs in which they work. The state reimburses those districts for the costs of the resource specialists, including travel. In 1975-76, Title VI-G funds totaled 43% of the LD project budget, with the state either directly or indirectly providing the other 57%.

Because the CSDC's parent organization is the BOCES, the BOCES staff is also constantly available to the LD project. This staff includes one curriculum/materials specialist, six counselors/psychologists, five speech pathologists, one occupational therapist, and one educational resource person. These people frequently work jointly with the resource specialists in planning and presenting paraprofessional workshops and classroom teachers' inservices around the region.

Both NaLDAP and the Northwest Regional Lab (an Area Learning Resource Center) out of Portland, Oregon have provided inservice workshops for resource specialists, consultation, and aid in dissemination. The State Office of Exceptional Children also provides consultation and assistance in dissemination, even though this office is staffed by only two people and does not have a learning disabilities department. Considering this, the CSDC Project Director feels the state has provided the best support services available. Various other state and local agencies have also provided their specialized services when particular student needs have arisen.

Testing and teaching materials used by the resource specialists and instructional aides are provided by the LEAs, the CSDC, and the BOCES

Educational Resource Center. Many materials used at the elementary level are either locally developed or adapted. High school materials are generally commercial products. The LEAs also have provided teaching facilities and their maintenance, consumable supplies, teacher time, and channels for CSDC dissemination into the local communities.

Consultative services, inservice training, and specialized student diagnostic services are also provided by five universities in the home state and surrounding region. Staff from one of the universities contracts each year to do the third-party evaluation of the CSDC.

Several local service organizations have given support to the project. A year ago the Eagles gave a $1,000 contribution to the BOCES for materials, some of which went to the learning disabilities program.

Goals, Objectives, and Related Activities

The project's goals for 1975-76 were the following:

- Objective 1: To identify children with specific learning disabilities in the public schools in the western part of the state
- Objective 2: To provide a systematic educational intervention program to ameliorate specific learning disabilities in individual children
- Objective 3: To develop and refine a program to train paraprofessionals to carry out individual prescriptive programs
- Objective 4: To develop and refine a viable system for delivery of learning disabilities services to remote rural areas
- Objective 5: To establish an adequate base of significant data for presentation to the State School Board and the State Legislature in requesting total state support of learning disabilities programs
- Objective 6: To gain support and approval of the State Educators' Association for use of trained paraprofessionals
- Objective 7: To provide parent training in the area of learning disabilities

In addition to working towards all the objectives in 1975-76, the model was implemented in one junior high and three high schools for the first time, thus expanding learning disabilities training to secondary administrators and teachers and providing learning disabled (LD) adolescents with special services. All objectives except for objectives 3, 5, and 6 were fully met in 1975-76, because of circumstances beyond the power of the CSDC. Objective 3 was partially accomplished in that paraprofessional training packages have been developed but not finalized and packaged for marketing. Objective 5 was also partially met in that fairly extensive data concerning student and paraprofessional growth, as well as data regarding the acceptance of the itinerant specialist program by the LEAs involved, have been collected and a model designed "to determine the efficiency of the learning disabilities project." However, total state funding of the learning disabilities program is not expected for 2 or 3 more years. Objective 6 was slightly revised. Rather than first approaching the State Educators' Assocation, the CSDC decided to work with and gain the support of the Association's local chapters in the districts served by the CSDC. This has in fact been accomplished, and the Project Director feels that with this support behind him he can approach the state organization for its support.

In order to prepare the paraprofessional instructional aides to carry out the intervention programs, a thorough, week-long, preservice training is provided at the beginning of the school year by the Project Director and the four resource specialists with backup from the other BOCES specialists. Some of the topics covered in the training session include learning disabilities characteristics, student evaluation, task analysis/concept analysis, modification of reading behavior, counseling and confidentiality, public relations, and an orientation to the materials center. The Project Director estimated that 75% of the instructional aides' training occurs throughout the year during weekly on-the-job supervision from the resource specialists. More inservice is also provided yearly by the BOCES educational resource person, who contracts with each LEA to give local workshops on topics requested by the LEA. If the topics covered are not directly concerned with learning disabilities, they are generally indirectly related. All instructional aides and resource specialists are expected to attend these workshops in their assigned districts, and they participate in the presentation of the learning disabilities topics with which they have expertise.

Services to Students

In 1969, the state passed a law requiring that "free and appropriate education" be provided to all handicapped children. In April of 1975, the state adopted new rules and regulations which stressed mainstreaming of mildly handicapped children whenever possible and which provided the first state definition of learning disabilities. It states that "specific learning disability shall mean near-average, average, or above-average intellectual ability concurrent with mild to severe handicaps in perception, conceptualization, language, memory, attention, or motor proficiency." It also requires every student's record be reviewed or "staffed" by a child study team composed of the resource specialist, referring party, building principal (who chairs the group), parent, and other appropriate spcialists from the school or other agencies. It is this committee's responsibility to make the final assessment of the student's problem area and recommendation based on this diagnosis. The service the CSDC provides to its learning disabled students is based on these rules and regulations as well as the federal definition of learning disabilities.

The project's goal in working with learning disabled students is to provide "assessment, prescription, and correction." The resource specialists provide the assessment and prescription; the aides, the correction. The process used to achieve this is the same in all school districts. The Project Director estimated that 10% of the 6,800 school-aged students in the five school districts served by the CSDC were eligible to be screened for learning disabilities in 1975-76. He attributed the high incidence rate in part to the transient population associated with the rapidly growing mining industry in part of the region. In fact, a total of 733 students were screened in the CSDC region and 444 of these were found to be learning disabled.

The process through which a student is identified and served is as follows:

- Students are generally referred to the resource specialist by the classroom teacher, and sometimes by the parent, student, or other specialist.

- The resource specialist confers with the referring party, collects background student data, and acquires parental permission for evaluation and has the building principal initiate a pre-staffing meeting of the child study team.

- A decision is made at the pre-staffing about the content of the diagnostic workup and which specialists are responsible for giving the tests and collecting the data.

- When the diagnostic workup is completed, the child study team reconvenes for a full staffing at which the diagnostic and placement decision is made. Parental permission is obtained for placement.

- If the child is considered learning disabled, the resource specialist creates an individualized educational plan, stating the instructional goals and the teaching procedures and materials to be used by the instructional aide. The resource specialist coordinates the plan with the classroom teacher and maintains ongoing communication about the child's progress.

- The instructional aide carries out the educational plan in the student's school. Elementary students may receive one-to-one or small-group attention from the aide in the classroom or in the aide's teaching space outside of the classroom. Junior and senior high school students attend a resource room. The instructional aide keeps daily anecdotal records on the child's progress.

- Re-evaluation of the educational plan and the student's growth is done every other week by the resource specialist. Posttesting is done at the end of the school year. End-of-year reports outlining the student's program and success for the year, as well as recommendations for the future, are written.

- The decision to terminate a student is made by the child study team upon recommendation of those working with the student, in which case the student is gradually phased out of the extra instruction provided by the aide and parents are notified of termination. If a learning disabled student is going from elementary to junior/senior high school, programming recommendations are sent ahead of the student to the new school by the resource specialist.

At the time of referral, information concerning the student's vision, hearing, health, and educational and family histories is collected and recorded on the referral form. Each of the four resource specialists has a slightly different theoretical approach to the amelioration of learning disabilities; however, they all provide diagnostic testing based on learning disabilities as a psychological processing deficit which causes a discrepancy between a student's academic achievement and measurable aptitudes. Thus the Wechsler Intelligence Scale for Children and the California Achievement Test are typically administered by a BOCES psychologist and a resource specialist respectively. Other tests such as the Bender-Gestalt Test, the Draw-a-Person, Peabody Picture Vocabulary Test, Peabody Individual Achievement Test, Illinois Test of Psycholinguistic Abilities, Denver Developmental Screening Test, Detriot Tests of Learning Aptitude, and the Goldman-Fristoe-Woodcock Test of Auditory Discrimination might be chosen by the resource specialist to assess the student's processing proficiencies.

In some cases a BOCES psychologist might also administer a psychological projective test, and the district's reading specialist might give a diagnostic reading test such as the Woodcock Diagnostic Reading Test. The battery of diagnostic tests administered to a student depends on his particular presenting problem. Every child is staffed at least once a year and thereafter whenever there is any significant change in the student's behavior or the programming for the student. At the writing of this report, final statistical analysis of the student growth data for 1975-76 had not yet been completed. However, the Project Director feels the data will show marked gains by the students receiving learning disabilities services.

Parents interviewed at one of the LEAs served generally expressed appreciation for the project. They felt their children had made marked academic and social gains. They also generally expressed an appreciation for the individualized attention provided by the aides but wished there were more contact between themselves and the resource specialist.

Other CSDC Activities

Because the CSDC is the only source of learning disabilities information and services in four out of five of the school districts served (there is not even an ACLD chapter in the region), dissemination is considered a top priority by the CSDC. Information regarding LD characteristics, assessment and teaching techniques, the CSDC itinerant resource specialist model, its goals, implementation of the model, and the pressing need for it in that region of the state are all topics covered in dissemination literature and presentations directed to school personnel, social service and state agencies, parents, and the community at large.

Dissemination channels used by the project include the following:

- A newsletter edited by the Educational Resources Center which is part of the BOCES
- Professional conferences, both regional and national
- NaLDAP meetings and newsletter
- A CSDC project brochure
- One two-minute slide tape presentation created by the CSDC
- Personal contacts with state administrators and State Department of Education personnel
- Personal contact with school personnel contracting for BOCES services

The Project Director feels, however, that the greatest informational impact occurs by word of mouth.

Due to extreme distances in the region, the project's designated Advisory Council has never met as a body. Each of the six members, who are school administrators in towns served by the CSDC, is frequently contacted by the Project Director for advice in his specialized area and for relevant information regarding his school district.

In 1975-76, the four resource specialists offered different programs to parents of students. In the town which was first provided LD services four years ago, a six-week, one evening a week, course was offered to parents and teachers by the resource specialist and BOCES school psychologist. Topics covered included parent/child communication, the theory and practice of positive behavior reinforcement, and home tutoring techniques for LD students. Another specialist sponsored approximately four separate evening presentations spread out through the year for parents. The topics covered were based on the spoken interests of the parents and included parent/child communication techniques and a review and explanation of the assessment/teaching process through which LD students go. Due to different local expectations of the project the two other resource specialists spent the year meeting parents in one-to-one conferences and speaking about the service delivery model at meetings of the PTA and other local groups.

Discussion

The remote, rural aspects of the region served by the CSDC provide it with unique challenges and problems. Among such challenges are attracting people with learning disabilities qualifications to the area to fill the resource specialist positions and maintaining ongoing staff communication and meetings over the long winters and distances. However, such situations are not regarded as problems by the CSDC. The Project Director has mounted successful recruiting campaigns that have attracted the special kind of professionals it takes to master the job, and staff meetings are arranged to allow for extensive traveling time.

Until four years ago the area of learning disabilities and special learning disabilities programs was almost unheard of in the region. The CSDC has had the responsibility of bringing the concepts to the awareness of the school districts' personnel as well as to the general public. The fact that each year more LEAs contract with the BOCES for learning disabilities services is a testament to their successful dissemination/replication program. Because the learning disabilities program is new in the schools, there is very little extra space in which the aides can teach. Thus, they teach in any space available including closets, the nurse's office, and empty bandrooms.

Another unique situation encountered by the CSDC was the lack of LEA support in one district, attributed to cultural and religious differences in this isolated community. However, the CSDC Project Director and resource specialist assigned to that district made a large effort in 1975-76 to accommodate these differences, and the district has contracted for continued learning disabilities services in 1976-77.

Because dissemination is such an important aspect of the project and because no one person has been responsible for dissemination in the past, a new job position has been defined by the project. In the fall of 1976, a project coordinator was hired to be in charge of dissemination as well as maintaining communication with the widespread LEAs and CSDC staff. This new position will provide the Project Director with more time to administer the learning disabilities and BOCES programs.

One area of concern that the Project Director noted was the fact that the CSDC could use some feedback from BEH regarding the adequacy of the CSDC's reports and program. He feels that this information would be very useful in future program planning and ought to be one of the benefits of being part of the national Title VI-G network.

The success of the project in meeting the unique, geographically induced challenges of the state and in fulfilling the state mandate to provide mainstreamed education to mildly handicapped students is apparent in that the State Office of Exceptional Children regards the CSDC's service delivery model as a prototype for the rest of the state and is planning statewide CSDC replication in a year.

PROJECT Q

Overview

This CSDC operated in the only high school of an urban/suburban midwest community of about 80,000. It was designed as a research project to determine the effects of grouping high school students with similar types of learning disabilities (LD) so that the LD teachers could work with more than one student at a time. The research design called for grouping half of the project students (20 tenth- and eleventh-grade students) according to specific criteria. The other half of the students (20 tenth- and eleventh-grade students) were to be served by the regular high school LD program. The second major goal of the project was to develop a curriculum guide, appropriate for high school students, for teaching language development. Other goals were to coordinate the project with ancillary services to meet the total needs of learning disabled students, such as career planning, personal counseling, and parent and teacher education; to evaluate the effectiveness of the model; and to disseminate information about the project.

The high school is composed of four semi-independent schools, housed within one facility. Each has its own administration, teaching staff, and library-resource center. Students are randomly assigned to one of the four schools; total enrollment is about 4,200. The project served students from all four schools.

In operation since 1968, the high school LD program had served students on a one-to-one basis. Teachers worked with students individually to remediate their deficiencies and with classroom teachers to prepare them to deal with students in regular classes. Most referrals came from the elementary school district. With the requirement that all identified LD students be provided appropriate services, the highly individualized remedial-tutoring program was inadequate to serve all students in need. Alternatives such as self-contained classes or a drop-in center were considered, but it was decided that the remedial-tutoring approach had been successful and features of it should be retained. The CSDC project was seen as a possible way to do this while increasing the number of students who could be served. Students would be grouped according to intellectual capacity, level of academic performance, and areas of deficits. At the end of the year, their achievements would be compared with that of control group students assigned to the regular high school LD program.

As originally planned, the project was to involve two phases. During the first year, the research design of grouping students and comparing their performance to a control group was to be implemented; curriculum development was to be the major activity during the second year. However, because notification of funding was not received until 2 1/2 months after the proposed start date of the project, there was insufficient time to hire the necessary staff to screen and test students before the beginning of the school year, so the two phases were reversed.

Funding/Staffing

The 1975-76 Title VI-G grant for the project was $82,606 and paid for these expenses: most of the staff salaries (including fringe benefits); staff travel; supplies, materials, and equipment; office furniture; dissemination expenditures; and overhead expenses. A small amount of state funds ($22,700) paid for the remainder of staff salaries. The total budget for the second year of the project was $105,306. When the project was initially funded, the school board made it quite clear that no money would be available to continue the project after federal funding was terminated. The high school provided nothing for the project except the use of the six resource rooms located throughout the four schools. The CSDC office was in one of these rooms. Continuation funding beyond the two years was not requested from BEH.

The original project staff consisted of the following people: the Director of Special Education at the high school, the four LD teachers already teaching in the high school LD program (one served as project coordinator), the school's psychologist, a secretary, a formative evaluator, and a summative evaluator. The summative evaluator, who was an administrator at the high school, evaluated the project at the end of each year. The coordinator indicated that neither the first-year nor the second-year report had been made available to project staff. The formative evaluator was to have written monthly progress reports both years. But the original person identified for the job was unable to serve in the role, and her replacement, who was with the Language Disorders Clinic at a nearby university, did not meet with the staff until March of the first year. He had almost no contact with the project the second year. During the first year, four additional teachers, a psychologist, and a social worker were hired. Only one teacher worked full time on the project. She was hired in January of the first year to identify and test students and, with the psychologist, to group students. The other teachers and the coordinator divided their time between the Title VI-G project and the high school program, and the psychologist and social worker worked part time on the project and part time elsewhere.* A number of adults and students from the university volunteered assistance for both years.

Goals, Objectives, and Related Activities

The first goal was the development of a curriculum to provide much-needed instructional materials that were relevant to high school students.

The complete curriculum is in three volumes, including a guide for usage. It covers 14 language arts skills and provides many activities to teach each skill. There is also a chapter on educational games. The units are designed to be used independently so that teachers can begin anywhere in the guide. In the beginning of the unit, three objectives are listed, each followed by a probe activity and a criterion of mastery. If the student can achieve all three objectives, the teacher need not work on that unit. After the unit's objectives, remedial activities are presented, followed by supplementary activities to use if a student's progress plateaus on remedial activities.

A common format is used to present the following information for every activity:

- skill (and subskill when appropriate)

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* The psychologist's project responsibilities were to test and write diagnostic summaries. He and the social worker were to plan and guide group meetings for students, for staff, and for parents. The social worker's other responsibilities included helping with the identification of students and counseling individual students.

- materials and sources -- suggested for use with the exercise* (Additional materials are listed in an appendix.)
- examples -- several words, phrases, etc., for doing the exercise
- exercise -- includes subskill, what the teacher says or does, and how the student responds
- process -- specifies the learning process(es) (e.g., oral production, auditory stimulus/visual response) required to do the exercise
- notes -- suggestions to the teacher for varying the exercise, additional information about the skill being taught

Both the exercises and examples were either selected from the materials and sources listed or were developed by the project staff. The curriculum does not include specifications for tracking students' progress, but a suggestion that teachers using the curriculum develop their own system for monitoring students' progress is given in the usage guide. Toward the end of the first year of the project, the formative evaluator reviewed the curriculum and made several specific suggestions for changes, many of which were incorporated into the final product.

Development of the curriculum began in the fall of 1974 and was scheduled to be completed by the end of that year. With assistance from the State Office of Education, it was to be field-tested and replicated during the second year in selected high schools throughout the state. One teacher was to be a contact person to assist field sites in implementing the curriculum. However, curriculum development was much more time consuming than anticipated, and the final product was not finished until the end of the second year. Assistance from the state to field-test and replicate the curriculum and disseminate information about the project was requested on three separate occasions with very little response. Therefore, no replication has been possible. The curriculum has been distributed only to the high school LD teachers.

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*These materials and sources were identified by staff as a result of an intensive review of instructional materials to locate protions that were not demeaning to high school students.

The second major goal of the project, that of screening and identifying students with specific learning disabilities and grouping them for instruction, began in the winter of the first year. To get a pool from which students would be drawn, the first year coordinator met with ninth- and tenth-grade teachers in three content areas to explain the project and request referrals. Teachers were asked to complete a screening form that provided information about students' achievement, social performance, emotional problems, and apparent discrepancies between intelligence and ability to perform academically. About 100 students were referred.

On the basis of the screening data, several students who were clearly not learning disabled were eliminated. Students who were likely to have difficulty during testing, relating with the teacher, being in a small-group setting or who had poor attendance records were also eliminated from the pool and referred to the school psychologist, if appropriate. Parents of the remaining students were contacted by letter to request permission to test their children. The full-time project teacher followed up with phone calls.

To be eligible for the project, students had to score at least 90 on either the verbal or performance section of the IQ test and exhibit a significant (at least two years') and consistent discrepancy between expected performance as measured by the IQ test and actual performance as measured by standardized tests. Testing proceeded until 40 students who fit the criteria were identified. Six students who had been tested and enrolled dropped out, resulting in a total of 34 students actually served. Most students received the same battery of tests, which included an intelligence test, standardized achievement tests selected to assess development of language and mathematics skills crucial to school performance, and two tests of processing skills. The psychologist wrote diagnostic summaries which discussed the student's areas of deficiencies, other potential problem areas, and general recommendations for remediation. Diagnostic data were recorded on individual profile sheets for use with forming the small groups. Students were then randomly assigned to either the experimental group or the control group. Parent/student conferences were held to review the results of the testing and to secure permission for enrollment in the project.

The next step was to match students in the experimental group according to IQ, ability level, and areas of deficit so that they could work together with the LD teacher on similar activities. This design posed significant problems because it did not take into account factors such as scheduling conflicts, teacher/student personality conflicts, and different teaching and learning styles. Some of these could be controlled by the staff, but some were out of their sphere of influence. Probably the biggest obstacle was scheduling, which is done each spring for the following year. The project staff was unable to meet the computer date, which meant that they had to make adjustments in students' schedules during the summer. They did, however, try to avoid putting two students together with widely varying IQs, and they tried to match students and teachers according to personalities and teaching styles.

The psychologist and teacher expressed several problems with the identification/diagnostic process. First, there was little time to search for tests, and they felt pressured to use the tests suggested by the formative evaluator. They were not comfortable with the diagnostic testing; they felt it did not always provide thorough enough data for judicious grouping of students. In some instances, if the psychologist suspected a pattern of deficiency, he would ask the teacher to administer additional tests, although this was not possible for all students.

Weekly staff meetings were held and were to have had two purposes. They were to be, first,information sessions for discussing project-related issues and, second, teacher effectiveness sessions to which teachers would bring specific problems for group discussion. Staff meetings did not always proceed as had been intended. During the two-year period that the project was in operation, the high school was faced with a significant deficit in the budget and, as a result, underwent reorganization and personnel cuts. Teachers were understandably preoccupied with their job security. The Director of Special Education resigned in the spring of the first year, and the project coordinator resigned in early fall of the second year. In addition, there was conflict between the teachers who had been at the high school prior to the project and those who were hired especially for the project. Finally, the relationship between the project and the school's Special Education Department was ill-defined. For these reasons, the staff meetings often became times to air personal concerns rather than to discuss students' problems.

Another proposed activity was daytime parent meetings with the social worker and psychologist to give parents an opportunity to share experiences and ask for advice for ways to deal with their children. A series of evening meetings on various other topics of interest were to be held too. The response rate and interest were so low when parents were surveyed about the meetings that plans for the counseling sessions were dropped. No follow-up with parents was done. Enough parents did, however, indicate interest in evening meetings on vocational planning and on educational planning, so two meetings were held in the spring of the second year. Representatives from a private school for LD children, a junior college, the state's Division of Vocational Rehabilitation, the high school's vocational experience program, a college consultant from the high school, and an LD teacher were among the presenters. About 19 parents attended both meetings. Most of the eight parents interviewed knew about their children's problems, but few described the resource room work. Half of them reported that they seldom had contact with staff, and most had never met the project coordinator until the interviews. Despite the lack of involvement, which is not untypical of parents of high school students, they supported the project (and the high school LD program), and several felt that their children's grades and attitude toward school had improved.

Rap sessions with the project students had been planned, but very few students attended the first session and these meetings too were discontinued. One explanation offered for the apparent lack of interest and poor attendance at all these functions was that neither parents nor students had been given enough information about the purposes of the meetings and what benefits they could receive from them. Also, when the scheduling was done, no block of time was set aside for group meetings, so it was very difficult to arrange them.

The social worker was available for individual counseling of students and saw two students regularly throughout the year and another four students on a short-term basis. Her goal was to teach students to assume more responsibility for their lives. She maintained communications with the referring teachers throughout the year to inform them of the nature of her meetings.

Services to Students

During the second year of the project, students in the experimental group went to their assigned resource room five days a week for a minimum of 45 minutes a day. On three days, the teacher worked with a group of two students on remediation of specific skills and processing deficits. Non-project students worked independently in the resource room at the same time. On the remaining two days, project students were tutored in academic subjects and were assisted in fulfilling class requirements, such as taking a test or being helped with a homework assignment.

Students in the control group were enrolled in the regular learning disabilities program and were scheduled to go to the resource room for at least three 45-minute periods a week, a requirement of the high school to receive credit for the class. These students were not grouped by any criteria. Instruction focused on individual needs, and they received remediation, tutoring, or both. All students were free to go to their assigned resource room for additional help when the teacher was free, and many did.

Educational programming was the responsibility of individual teachers. The project had no required standard educational plans or procedures for monitoring students' progress or checking that students' files were updated or accurate. The three teachers interviewed indicated that they prepared educational plans and updated them when needed. They also indicated that they had devised informal methods to assess students' progress, and some kept anecdotal records in their files.

Of the six resource rooms in the high school, three had been used by the high school program, and the other three were made available for the project. The rooms were equipped with typewriters, cassette recorders, reel-to-reel recorders, tachistoscopes, and various other pieces of audiovisual equipment. They also featured study carrels, and some had smaller, private rooms for listening to tapes. Teachers and volunteers tape-recorded many novels and almost all the textbooks for science, social studies, English, and driver education; and then copies were made on a cassette copier for each room. Many of the instructional materials reviewed for the curriculum guide were bought by the project for use with students, and, as the curriculum was developed, portions were field-tested with project students.

Students from the university and adult volunteers worked as tutors in the resource rooms. They were trained individually and performed various jobs, such as reading exams to students, playing word games, taking dictation, and tutoring in content areas. According to staff, the project benefited greatly from the volunteers' services.

Parents received one-page quarterly reports with information on students' progress in academic and remedial areas, their work habits, and if necessary, the need for a parent conference. At the end of the year, teachers prepared for each student a summary report that described what work was done during the year, materials used, gains made and how gains were measured, and recommendations for next year. Students were also asked whether they wished to continue with learning disabilities remediation next year. As already indicated, students were posttested on certain tests, and the attitudinal questionnaires filled out by parents and students early in the project were completed again. A comparison of pretest and posttest scores revealed no differences between achievement levels of student in the experimental group and students in the control group.

Other CSDC Activities

The Advisory Council, composed of people from the medical and special education fields, state government, local community services, and parents, met twice late in the first year of the project and twice during the second year. The first-year meetings were primarily centered around familiarizing the Council with background information about the high school, the goals of the project, the work that had been accomplished so far during that year, and staff responsibilities. They provided input during the development of student and parent questionnaires and were asked to comment on the direction of the project. Meetings during the second year centered around reporting progress rather than actively soliciting suggestions. Plans for the various counseling sessions were discussed and data about students and grouping patterns were reported. In general, the Advisory Council fulfilled its purpose of providing guidance and direction to the staff, although it was felt that the state representative could have been more supportive.

The project received support from several local organizations. The parent-teacher organization solicited volunteers for the resource rooms, and the local ACLD chapter provided parents with literature about the organization. A parent organization for perceptually handicapped children gave a slide presentation and included announcements in its newsletter about project-sponsored activities and the need for volunteers. Contacts with other community agencies were minimal but positive.

Dissemination activities did not consume significant amounts of staff time. The project coordinators were the most heavily involved, and much of the dissemination was done in response to requests for information. First-year activities involved writing a brochure describing the high school LD program and the project's goals. The brochure has been distributed to community agencies, parent and school advisory groups, teachers, and representatives in the state's Office of Education. It was given to visitors and, along with the proposal, mailed to people requesting information. Because of the changes in the project timeline, the brochure was outdated but was never rewritten to reflect the changes. Presentations about the rationale and specific features of the project were given at the high school, at two CEC conventions, and at the ACLD Convention in Seattle. The project also received some coverage on a local television station and in a newspaper.

Attempts were made to involve other high school personnel with the project. Prior to submitting the proposal, two of the learning disabilities teachers held short meetings with teachers from two of the high schools, the school psychologist, a social worker, and speech therapist to prepare them for the possibility of receiving a grant to conduct the project. During the first year, four project teachers met with counselors to explain the project and try to coordinate high school requirements with the project's goals. On another occasion, one learning disabilities teacher met with all the social workers at their request to answer questions about the project. No formal preservice training was given to the four teachers hired for the project.

Teachers interested in professional development attended classes offered by one of the nearby universities. Along with many other high school teachers, five LD teachers attended an eight-week training session sponsored by Right to Read and aimed at teaching several aspects of the reading process so that they could coordinate their instruction with that of content area teachers. Various staff members attended the state and international CEC conventions, the national ACLD meeting in Seattle, and NaLDAP workshops.

Discussion

This project operated under a number of constraints, many of which have already been discussed. The ones that presented the most significant obstacles toward achieving the project's goals bear repeating here:

- Lack of support for the project from the school board
- Problems within the high school (personnel changes, reorganization, budget problems, size)
- Lack of support from the state's Office of Education (One explanation offered for this was that the state had a new assistant superintendent for special education. The high school is expecting more direction in the future.)
- Difficult design for grouping students

During interviews, the staff discussed several other difficulties that they encountered. It was felt that high school personnel, especially LD teachers, were not properly informed about how the Title VI-G project would affect them and its relationship to the already existing learning disabilities program. The result was some resistance from these teachers, who had had quite a bit of autonomy in the high school program, and lack of support and interest of other teachers.

The size and layout of the high school posed a significant problem for project staff who wanted to coordinate their instruction with instruction in the content areas. Physically, it was very difficult to see students' other teachers. They do not have phones in their offices, so the inter-school mail system is the only way to communicate. One project teacher said that she sent notes to teachers of project students with their test results and asked them to get in touch with her for a conference. She got very little response so had to go to each of the four schools and wait outside teachers' classrooms in order to talk to them. There was some feeling that, had the project included procedures for coordinating with content area teachers, perhaps they would have been more supportive and responsive.

An unanticipated result of the project was the identification of many students who fit the criteria for the project but who had never been in a special education program. The screening process was really the first actualized, formalized procedure for identifying LD high school students. Although a referral procedure existed within the high school, the assumption had always been that the elementary schools were identifying and serving most LD students. In fact, however, 75% of the students referred to the project were newly identified, and 37% of these were served by the project.